

PROFESSIONAL DEVELOPMENT ENHANCEMENT MODEL FOR
NEW HUMAN RESOURCES IN BORDER UNIVERSITIES
IN GUANGXI

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A thesis submitted in partial fulfillment of the requirements for
the Degree of Doctor of Philosophy Program in Educational Administration

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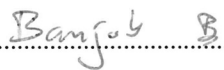

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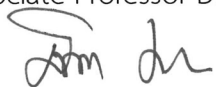

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บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อศึกษาสถานการณ์ปัจจุบัน พัฒนาและประเมินความเหมาะสมและความเป็นไปได้ของรูปแบบการส่งเสริมการพัฒนาวิชาชีพบุคลากรใหม่ในมหาวิทยาลัยชายแดนในมณฑลกวังสี กลุ่มตัวอย่าง ได้แก่ บุคลากรใหม่จำนวน 210 คน จากมหาวิทยาลัยชายแดนในมณฑลกวังสี 3 แห่ง ผู้ให้ข้อมูลสัมภาษณ์จำนวน 12 คน และผู้เชี่ยวชาญสำหรับการประเมินรูปแบบจำนวน 9 คน เครื่องมือที่ใช้ในการวิจัยประกอบด้วย แบบสอบถาม แบบสัมภาษณ์แบบมีโครงสร้าง และแบบประเมิน วิเคราะห์ข้อมูลโดยใช้ค่าร้อยละ ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน และการวิเคราะห์เนื้อหา

ผลการวิจัยพบว่า สถานการณ์ปัจจุบันของการพัฒนาวิชาชีพโดยรวมอยู่ในระดับสูง โดยด้านที่มีค่าเฉลี่ยสูงสุด ได้แก่ การมุ่งเน้นด้านเนื้อหา รองลงมา ได้แก่ การเรียนรู้เชิงรุก การทำงานร่วมกัน และระยะเวลา ตามลำดับ ส่วนการสะท้อนแนวคิด มีค่าเฉลี่ยต่ำสุด รูปแบบการส่งเสริมการพัฒนาวิชาชีพบุคลากรใหม่ ประกอบด้วยมาตรการใน 5 ด้าน รวมทั้งสิ้น 46 มาตรการ ได้แก่ การส่งเสริมการเรียนรู้เชิงรุก 9 มาตรการ การเสริมสร้างการทำงานร่วมกัน 9 มาตรการ การเพิ่มประสิทธิภาพด้านระยะเวลา 9 มาตรการ การเสริมสร้างการมุ่งเน้นด้านเนื้อหา 10 มาตรการ และการเสริมสร้างการสะท้อนแนวคิด 9 มาตรการ ทั้งนี้ รูปแบบดังกล่าวมีความเหมาะสมและความเป็นไปได้อยู่ในระดับสูง และสามารถสนับสนุนการพัฒนาวิชาชีพของบุคลากรใหม่ได้

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ABSTRACT

The objectives of this research were to study the current situation, formulate and evaluate the suitability and feasibility of the professional development enhancement model for new human resources in border universities in Guangxi. The sample group of this research included 210 new human resources from 3 border universities in Guangxi. The interviewees included 12 people. The experts who evaluated included 9 people. Research instruments included a questionnaire, structured interview, and evaluation form. Data were analyzed by percentage, mean, standard deviation, and content analysis.

The results found that the current situation was at high level. Among those, the mean was content focus, followed by active learning, collaboration, and duration, while reflection had the lowest mean. The professional development enhancement model for new human resources in five aspects contained 46 measures. There are 9 measures for enhancing active learning, 9 measures for strengthening collaboration, 9 measures for optimizing duration, 10 measures for enhancing content focus, and 9 measures for strengthening reflection. The model was highly suitable and feasible for supporting new human resources' professional development.

Keywords: Enhancement Model, Professional Development, Border Universities in Guangxi

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Chapter 1

Introduction

Rationale

From a global perspective, improving educational quality and expanding lifelong learning opportunities have become important priorities within the United Nations 2030 Agenda for Sustainable Development. Sustainable Development Goal 4 (Global goals, 2026) provides a broad policy framework for promoting inclusive, equitable, and lifelong learning opportunities. Within this context, the continuous professional development of educators has attracted increasing attention, particularly in relation to their capacity to learn, collaborate, sustain professional growth, develop relevant professional knowledge, and engage in reflective practice. Teachers therefore play a critical role in strengthening the quality and development of higher education institutions. This international emphasis is also reflected in recent initiatives for teacher professional development. The TPD@Scale Coalition for the Global South (2025), for example, has introduced the ETI development program to address teachers' professional learning needs and improve the equity, effectiveness, and efficiency of professional development systems. The initiative further seeks to identify approaches for expanding quality professional development in developing-country contexts, strengthening program capacity, and generating evidence to inform professional development policies and practices (Tinio, V. L., 2025, p.1). Against this international background, strengthening the professional development of newly appointed university personnel has become an important concern for higher education development and educational reform.

At the national level, the Ministry of Education and the National Development and Reform Commission of the People's Republic of China jointly released the Notice on Organizing and Implementing the Teacher Education Capacity Improvement Project (hereinafter referred to as the "Notice"), which sets out initiatives aimed at reinforcing China's distinctive teacher education system and

promoting the ongoing professional growth of teachers during the 14th and 15th Five-Year Plan periods (Ministry of Education & National Development and Reform Commission of the People's Republic of China, 2025). At the National Education Conference, General Secretary Xi Jinping called for fostering the educator spirit and advancing the development of a high-quality teaching workforce (Xi Jinping, 2024). In China, promoting professional development through active learning, sustained engagement, and content-focused practices has become an important approach to advancing educational strength.

In Guangxi, Liu Youyi (2025), who serves as Director of the Guangxi Provincial Department of Education, highlighted the need to foster the educator spirit, enhance the quality and precision of teacher training, and improve support and welfare provisions for educational professionals. To support teachers' career-long professional growth, teacher development centers have been established across universities throughout Guangxi. These centers are responsible for developing professional growth plans for teachers; organizing induction programs for newly recruited faculty; strengthening instructional competencies through teaching competitions and related activities; fostering professional learning communities; conducting teaching assessments and quality monitoring; offering pedagogical consultation, career development guidance, and access to relevant resources; and facilitating teachers' continuing professional growth. In this framework, the centers seek to strengthen five interconnected dimensions of teachers' professional development: content focus, active learning, collaboration, reflection, and sustained engagement over time.

Moreover, the Guangxi Education Improvement Project Implementation Plan for Border Areas, issued by the General Office of the People's Government of Guangxi Zhuang Autonomous Region (2022), calls for reinforcing teacher workforce development in schools located in border areas and improving teachers' professional competencies. It coordinates training programs such as the National Training Program and the Regional Training Program to purposefully and systematically provide categorized, tiered, and position-specific training for teachers in border areas, leveraging the support of educational research. It establishes a workshop for the

Educational Researcher Navigation Project, standardizes and deepens school-based research, encourages frontline teachers to participate in teaching research, and cultivates some outstanding teaching achievements. It can be seen that the Guangxi Education Department has provided strong support for the professional development of teachers in border areas through its policies.

The research found that the professional development of teachers in Guangxi border universities is highly valued by the institutions, but there are also many limiting factors affecting their development. With the rapid development of information technology, universities in Guangxi should focus on the continuous optimization and development of human resources during the digital transformation process. They should strengthen the application of educational technology and the construction of teaching infrastructure, while promoting the enhancement of faculty skills and the transformation of organizational culture through innovative human resource management strategies and practices. This will facilitate the professional growth and personal development of faculty and staff, thereby increasing the competitiveness and social influence of the schools (Wu Daping & Huang Juan, 2024, p.76). Nevertheless, variations in institutional missions, educational objectives, and contextual conditions across universities inevitably lead to differences in how teacher professional development is implemented and in the outcomes it produces. For universities in Baise and Chongzuo, two cities situated along the China–Vietnam border and geographically distant from Guangxi's administrative center, these contextual constraints are particularly pronounced. Together, these conditions can hinder the broader development of border universities and limit the depth and continuity of teacher professional development.

Firstly, in a questionnaire survey of 2478 teachers in 8 border counties in Guangxi (Chen Mengyu, 2024, p.7), it was found that the development of teachers' professional development in the border areas of Guangxi was uneven, with the score of professional development demand being the highest, while the score of external provision was the lowest. In view of this situation, teachers in the border areas of Guangxi can meet the needs of teachers' professional development and obtain

opportunities for teachers' professional development through strategies such as the support of the external environment, the improvement of the training system, and the development of characteristic courses, so as to further improve the professional development level of teachers in the border areas of Guangxi. In the past three years, the professional development of teachers in Guangxi border areas has been mainly focused on centralized training, and the training methods are relatively solid, with traditional classroom training taught by experts and attended by students, lacking a combination of multiple training methods, and lacking the effectiveness and pertinence of training (Hu Jinxia & Chen Qingwen, 2024, p.27).

Secondly, the research conducted on teachers along the Guangxi border revealed the following current situations: 1) There is a structural imbalance in the teacher workforce, with a need to enhance research quality and capabilities, and significant room for progress in guiding teachers' instruction, improving teachers' professional skills, and formulating medium to long-term subject plans. 2) There is an emphasis on theoretical training over practical research, leading to insufficient effectiveness and relevance of the training. 3) The teachers' research work is stuck in a 'low-level cycle,' with low effectiveness in project research, and there is an urgent need for expert guidance. (Hu Jinxia & Chen Qingwen, 2024, p.27).

Thirdly, after conducting a survey on the professional development status of teachers in the border areas of Guangxi, the following six aspects were found (Wei Xi, 2025, p.27). 1) Outdated educational philosophy. 2) Limited subject knowledge. 3) Lack of teaching skills. 4) Lack of experience in class management. 5) Weak educational research capabilities.

Lastly, the Ministry of Education of China has officially launched the "Excellent Teacher Program," which is implemented by normal universities directly under the Ministry of Education and local normal colleges. Each year, approximately 10,000 teacher trainees are trained for primary and secondary schools in 832 poverty-stricken counties and land border counties in the central and western regions. They will move from their desks to the podiums and return to their hometowns to

contribute fresh educational strength to more underdeveloped areas in the central and western regions (Zhou Jian, Peng Xuyang, 2025, p.6).

In conclusion, improving the professional development of new human resources in the Guangxi border area requires us to focus on active learning, collaboration, duration, content focus, and reflection. This is an important goal of higher education reform, which can accelerate the high-quality and balanced development of higher education, optimize the allocation of regional educational resources, promote the development of border area education, and build a high-caliber teaching faculty in the border regions.

Research Questions

1. What is the current level of professional development of new human resources in border universities in Guangxi?
2. What is the professional development enhancement model for new human resources in border universities in Guangxi?
3. Is the professional development enhancement model for new human resources in border universities in Guangxi management suitable and feasible?

Objectives

1. To study the current level of professional development of new human resources in border universities in Guangxi.
2. To formulate the professional development enhancement model for new human resources in border universities in Guangxi.
3. To evaluate the suitability and feasibility of the professional development enhancement model for new human resources in border universities in Guangxi.

Scope of the Research

Population and the Sample Group

Population

The population of this research is 461 new human resources from 3 border universities in Guangxi. The inclusion criteria for the target population were defined as follows: (1) being employed as a university teacher; (2) holding a master's degree or higher qualification; and (3) having no more than three years of employment experience.

The Sample Group

Based on the sample size guidelines proposed by Krejcie and Morgan (1970), a total of 210 new human resources from three border universities in Guangxi were selected through a combination of stratified and simple random sampling techniques.

Table 1.1 List of universities and sample size

No	Border Universities in Guangxi	Population	Sample group
1	Baise University	239	109
2	Guangxi Normal University for Nationality	57	26
3	Youjiang Medical University for Nationality	165	75
Total		461	210

The interviewees

The study involved 12 senior administrators from teacher development centers at border universities in Guangxi as interviewees. The eligibility criteria for participation included: (1) holding a division-level leadership position; (2) having a minimum of six years of experience in senior administrative roles at teacher development centers in border universities; (3) possessing a certificate or qualification related to professional development; and (4) holding a master's degree or higher.

Expert group

The model was assessed for its suitability and feasibility by a panel of nine experts drawn from border universities. The expert inclusion criteria were established as follows: (1) having at least 10 years of experience in senior administrative positions at teacher development centers in border universities; (2) holding a professional development-related qualification or certificate; and (3) possessing a doctoral degree or higher.

The Variable

According to the analysis of related theories and research, the characteristics of professional development of new human resources are as follows:

1. Active learning
2. Collaboration
3. Duration
4. Content focus
5. Reflection

Time

October 2025 – August 2026

Advantages

1. To integrate localized data with the distinctive socio-cultural environment of Guangxi's border universities, the study offers deeper insights into the professional development of new human resources.

2. To formulate a professional development enhancement model for new human resources, the study utilizes the distinctive border environment and new human resources of Guangxi universities.

3. To evaluate the suitability and feasibility of the professional development enhancement model, the study capitalizes on the unique border context and localized resources of Guangxi universities.

Definition of Terms

1. Professional development refers to a continuous and lifelong process in which individuals enhance their professional knowledge, skills, and competencies through active learning, collaboration, and critical reflection. It enables practitioners to adapt to changing professional demands, improve their professional practice, and achieve sustained career growth.

2. Active learning refers to a professional learning process in which new human resources actively develop professional knowledge, skills, and practice through authentic tasks, research–practice integration, iterative experimentation, and critical reflection. Supported by administrators, it encourages engagement in the Plan–Act–Observe–Reflect cycle, case-based inquiry, adaptive teaching, interdisciplinary collaboration, and immersive professional practice, thereby promoting continuous improvement and sustainable professional development.

3. Collaboration refers to a professional learning process in which new human resources enhance their professional competence through knowledge sharing, peer learning, interdisciplinary collaboration, and shared problem-solving. Supported by administrators, it emphasizes establishing knowledge-sharing channels, clarifying team roles, developing a shared vision, strengthening reciprocal relationships, optimizing collaboration models, and promoting multidimensional interaction to foster collaborative competence and sustainable professional development.

4. Duration refers to a sustained and structured professional development process in which new human resources continuously enhance their professional competence through long-term planning, staged goals, ongoing participation, and continuous improvement. Supported by administrators, it emphasizes systematic professional development plans, regular monitoring and feedback, adaptive adjustment, sustainable institutional support, and routine professional practice to strengthen self-efficacy and promote sustainable professional growth.

5. Content focus refers to a professional development process in which new human resources continuously strengthen their professional knowledge and teaching competence through systematic content organization, continuous content

optimization, and the integration of theory with practice. Supported by administrators, it emphasizes coherent content structures, curriculum updating, project-based learning, industry-education integration, and authentic professional practice to promote meaningful learning, distinctive professional development, and sustainable teaching improvement.

6. Reflection refers to a professional development process in which new human resources continuously improve their professional practice through critical analysis, evidence-based inquiry, and continuous adjustment. Supported by administrators, it emphasizes targeted reflection, feedback analysis, peer feedback, evidence collection, case analysis, critical reasoning, and iterative experimentation within a Practice–Reflection–Adjustment cycle to strengthen professional judgment, improve teaching practice, and promote sustainable professional development.

7. Professional development enhancement refers to a systematic process of improving professional competence and performance through active learning, collaboration, sustained development, content-focused learning, and evidence-based reflection. It enables individuals to continuously strengthen professional practice, adapt to evolving educational demands, and achieve sustainable professional growth.

8. New human resources refer to newly appointed university teachers who undertake teaching or research responsibilities. Under relevant local policies, the initial three years of employment are generally regarded as the induction period, in which newly appointed teachers are expected to fulfill requirements related to induction assessment, initial training, and professional development. Accordingly, individuals were included in the study when they satisfied the following criteria: (1) being employed as a university teacher; (2) holding a master's degree or higher qualification; and (3) having no more than three years of employment experience.

9. Border Universities of Guangxi refer to higher education institutions located along the China–Vietnam border in Guangxi Province. In this study, they include Baise University, Youjiang Medical University for Nationalities, and Guangxi Normal University for Nationalities. These universities are characterized by their

responsibility to support regional development through talent cultivation, applied research, and educational services.

Research Framework

According to table 2.1, the researchers conducted a systematic analysis and synthesis of relevant documents, conceptual perspectives, theoretical frameworks, and prior studies concerning the professional development of new human resources, which consisted of Desimone, L. M. (2009), Bao Cong (2010), M Bojun (2023), Zhang Hui (2025), Liu Xiaohong (2025), Xie Hongyu (2025). The researcher used the criteria to consider the corresponding characteristics. To use as a framework for research in this study. By selecting characteristics with a frequency of 7 or more. These can be synthesized into 5 characteristics as follows: 1) active learning, 2) collaboration, 3) duration, 4) content focus, and 5) reflection. Based on the above content, the research framework was developed, as shown in Figure 1.1.

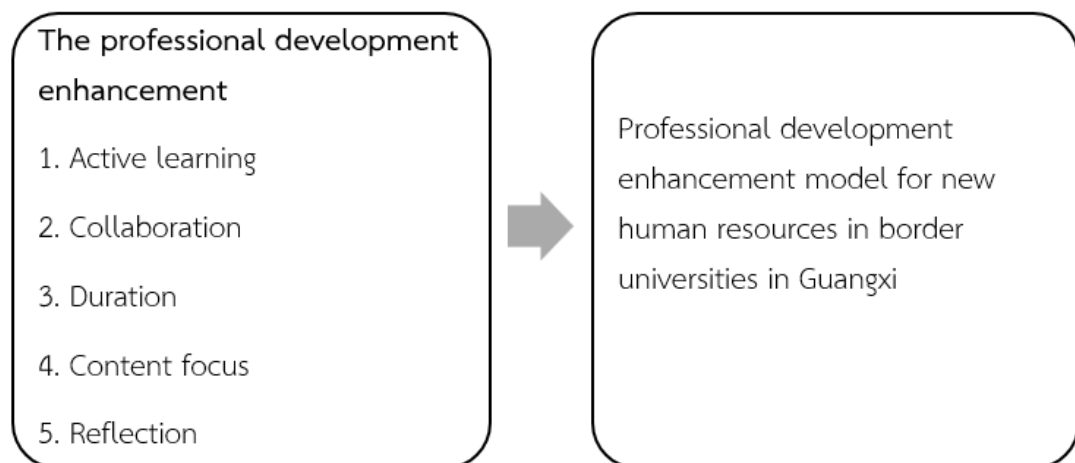


Figure 1.1 Research Framework

Chapter 2

Literature Review

In the research on the professional development enhancement model for new human resources in border universities in Guangxi, the researcher analyzed documents, concepts, theories, and research related to the professional development of new human resources as follows:

1. Concept of Educational Administration
2. Theory and Concept of Human Resource Management
3. Theory and Concept of Professional Development
4. Context of Border Universities in Guangxi
5. Related Research

The details are as follows.

Concept of Educational Administration

Concept of Educational Administration

Koontz, H. D., & O'Donnell, C. (1955, p.20-25) proposed that educational administration refers to the process involving five steps: planning, organizing, staffing, directing, and controlling. The concept of educational administration encompasses four core concepts: planning, organizing, leading, and controlling. It emphasizes the fundamental principles and methods of management, holding that educational administration should center on organizational planning to achieve educational goals. Educational administration focuses on stressing that managers need to possess strong planning and organizational skills, be able to effectively lead teams, and ensure the continuous optimization of the educational process through control and feedback mechanisms. At the same time, educational administration particularly highlights the importance of communication and collaboration in management, advocating that managers should maintain good communication and cooperative relationships with

all parties within educational institutions. This has significant guiding value for educational administration.

Capper, C. A. (Ed.). (1993, p.11) proposed that educational administration refers to a core focus on management efficiency, dedicated to improving the operational mechanisms of education, and concerned with how institutions function and how they can operate more efficiently and smoothly. It advocates that educational administration must cultivate new leadership concepts, enabling students and schools to challenge the deeply entrenched institutional discrimination in society. Managers need to pay attention not only to the complexities of demographic changes, but also to the needs of groups that have always been core components of the educational field and are now demanding participation in the educational dialogue.

Paige, R. M., & Mestenhauser, J. A. (1999, p.515) proposed that educational administration refers to a series of organizing and leading activities centered on organizational planning with an international perspective. The theory of educational administration emphasizes learning to observe matters with a globalized mindset and forming a brand-new view of knowledge. It advocates that each international discipline should examine how it promotes learning, integrating into the knowledge system and teaching process the core concepts of integration, cultural characteristics, contextual relevance, comparative analysis, interdisciplinary integration, knowledge and technology transfer, and globalization.

Leithwood, K., Jantzi, D., & Steinbach, R. (1999, p.21) proposed that educational administration involves leadership practices that set directions, develop people, and redesign the organization to improve student learning—positioning management as leadership activities aimed at enhancing school learning outcomes.

Hallinger (2003, p.86) proposed that educational administration refers to activities that lead and manage organizational change in schools, emphasizing instructional leadership, systemic change, and learning-centered management tasks.

Sun Miantao, Kang Cuiping. (2003, p.22) proposed that educational administration combines the characteristics of scientific and humanistic approaches,

focusing on organizational structures and the people within them, and emphasizing both cognitive rationality and value rationality in the business management process. It places greater emphasis on training educational administrators, not only stressing abstract and practical knowledge, nor solely focusing on how such knowledge improves the efficiency of educational management, but more importantly, on how such knowledge can be better received.

Bush, T. (2011, p.392) proposed that educational administration refers to a constellation of leadership–management models through which educational institutions are governed and improved. It is not a single bureaucratic control, but encompasses multiple paradigms such as bureaucratic/hierarchical, collegial consultation, political, subjective interpretation, cultural, and contingency, used to explain and guide decision-making and resource allocation in educational organizations to serve school improvement and the enhancement of learning outcomes.

World Bank (2012, p.1) proposed that educational administration refers to the set of governance mechanisms—including autonomy, accountability, financing, and quality assurance—through which tertiary institutions are steered rather than controlled to improve performance and align with societal needs. This framework emphasizes achieving organizational goals through rules, incentives, and quality assurance.

Hargreaves & Fullan (2012, p.15) proposed that educational administration should balance 'professional capital' and systemic improvement, focusing on teachers' professional development, a collaborative culture, and institutional support.

Hoy, W. K., & Miskel, C. G. (2013, p.1) proposed that educational administration refers to the application of organizational and management theory to schools and universities, focusing on how formal structures, organizational processes, culture, and climate interact to influence teaching, learning, and staff behavior. It is an integrated field of practice that combines institutional environment with

organizational processes, focusing on teaching improvement and organizational effectiveness.

UNESCO (2015, p.7) proposed that educational administration refers to the governance and management arrangements that build effective and efficiently governed systems to secure inclusive, equitable, quality education and lifelong learning; that is, through good governance and accountability, to allocate resources, ensure quality, promote teacher development, and enhance learning outcomes.

Abdalla, M. S., & Ali, I. A. (2017, p.326) proposed that educational administration refers to the application of management theory and practice to the field of education or educational institutions. It is the process of acquiring and allocating resources to achieve predetermined educational goals. The process of educational administration includes five basic functions: planning, organizing, directing, coordinating, controlling, and evaluating. It advocates that managers use these functions to achieve the goals and objectives of educational institutions.

OECD (2019, p.13) proposed that educational administration refers to leadership and management that cultivate teachers' and school leaders' professionalism (continuous learning, collaboration, evidence-based improvement), thereby promoting the continuous enhancement of teaching quality and school performance through governance at the organizational and cultural levels.

National People's Congress Standing Committee (2021, p.6) proposed that educational administration refers to the lawful governance of educational institutions within a national legal framework** that clarifies rights and responsibilities, guarantees necessary conditions, and regulates quality evaluation and accountability; higher education institutions shall manage schools in accordance with the law, standardize internal governance and the management of personnel, teaching, research, and other activities, so as to achieve educational goals and fulfill public responsibilities.

Yang, Kaicheng. (2025, p.9) proposed that educational administration refers to the overall teaching process resulting from the implementation of all curricula within a school organization. To achieve quality-based educational administration, we must first realize the professionalization of education and use an educational process

mechanism diagram to represent the educational process. Secondly, we need to strengthen the professional subjectivity of educators, which is constructed around professionalism. Finally, we should reinforce the conservatism of school administrative management and leave educational innovation to educational process management.

In summary, educational administration refers to a systematic process of applying management principles to education, encompassing planning, organizing, directing, coordinating, controlling, and evaluating to achieve institutional goals. It emphasizes efficiency and leadership, while addressing issues of equity and institutional effectiveness. At the same time, it incorporates global perspectives, encouraging cross-cultural understanding and interdisciplinary integration in educational practice. Educational administration combines scientific rationality with humanistic values, focusing on both organizational structures and human dimensions, and stressing the importance of communication, collaboration, and professional training. It also highlights the professionalization of educators and the structured management of curricula and teaching processes, balancing stability in governance with educational innovation. Overall, it provides a holistic framework that guides educational institutions toward effective governance, sustainable development, and global relevance.

Concept of higher education administration

Middlehurst, R., & Elton, L. (1992, p.252) proposed that higher education administration refers to the process of overseeing the overall situation, leading the direction, and executing administrative services. Its core functions lie in organization and control. The main objective is to enhance organizational efficiency and effectiveness within the framework of predetermined goals. Its role is to implement policies within the framework of established systems, rules, and procedures. Therefore, the first step is to choose an appropriate governance model, followed by management and leadership practices under this model, with a focus on the roles of internal actors who, as managers and leaders, are committed to promoting, facilitating, and supervising the achievement of academic objectives.

Lewis, J. W., & Heckman, R. (2006, p.23) proposed that in the context of higher education institutions, talent management, which is an important part of higher education administration, should be proactive and contribute towards the development of the organization's strategy. It involves identifying key positions, developing a talent pool, and creating human resource frameworks to support the organization's competitive advantage.

Zgaga (2006, p.39) proposed that there are three levels of governance analysis related to higher education administration: internal or institutional governance of higher education institutions, external or systemic governance of higher education systems, and international or global governance of higher education systems within an international perspective.

Ruth Gannon Cook & Roy Sutton. (2014, p.3) proposed that higher education administration, as the management of higher educational institutions—such as colleges and universities—is responsible for overseeing curriculum, programs, staff, students, and educational progress. This definition emphasizes the administrator's responsibilities in areas such as teaching, personnel, and student progress.

Figueiró, P.S., & Raufflet, E. (2015, p.23) proposed that higher education administration is the process of supporting higher education institutions in establishing and advancing the concept of sustainable development across all areas of governance, operations, education, and research by providing resources, professional development, and support networks. Higher education administration should be committed to promoting research, teaching, and service in the field of the relationship between organizations and the natural environment, with a focus on sustainability.

Webber & Scott (2016, p.62) proposed that higher education administration encompasses leadership tasks such as strategic planning, academic entrepreneurship, resource allocation, and data-driven decision making to sustain institutional performance.

Akpan, J. (2016, p.207) proposed that higher education administration is the process of coordinating and integrating both human and material resources for the

achievement of the goals of the higher education system. It involves interrelated activities of planning, coordinating, organizing, leading, and controlling

Council on Higher Education (CHE) (2016, p.108) proposed that the scope of governance at the institutional level in higher education administration encompasses the “formal structures and informal interactions” through which the various role-players in the Universities participate in making high-level decisions and provide oversight.

Papantymou, A., & Darra, M. (2017, p.143) proposed that higher education administration refers to the process of improving the quality of school operations and business processes through educational governance, enhancing corporate image perception, increasing operational efficiency, solving problems, and creating competitive advantages. The quality of higher education is an important cornerstone for national knowledge creation, human resource development, and the building of social capacity. In the field of curriculum system optimization, research has found that factors such as integration, institutional history, type of institution, transformational leadership, human care, personality traits, accumulation of experience, curriculum design, resource allocation, student participation, school vision, knowledge reserve, constructive conflict, innovation tension, and passionate commitment are all important supports for universities to successfully implement quality management.

Rezaev, A. V., & Maletz, O. V. (2020, p.184) proposed that higher education institutions are complex organizational systems aiming not at profit maximization but knowledge production, social innovation, and intellectual development, thus requiring administration tailored to these unique missions.

Zhao Xiaoyu & Ding, Wen. (2024, p.161) proposed that higher education administration is transforming from being dominated by administrative orders to being driven by data-based decision-making, ensuring the scientific allocation of educational resources and the precision of educational decisions. Therefore, universities need to build an open and flexible management system that encourages

the exploration and practice of innovative thinking and methods to promote diversification and personalization in educational and teaching activities.

National Center for Education Statistics (NCES) (2025, p.3) proposed that higher education administration as a program focusing on the principles and practice of administration in colleges and universities, including areas such as economics, finance, policy, planning, curriculum, labor relations, law, student services, institutional research, marketing, evaluation, and accountability.

In summary, higher educational administration refers to the comprehensive process of overseeing and managing higher education institutions to achieve organizational goals and enhance efficiency. It involves core functions such as organization and control, aiming to implement policies within established systems and frameworks. The process includes selecting appropriate governance models and engaging in management and leadership practices that promote academic objectives. Higher education administration also supports the establishment and advancement of sustainable development across governance, operations, education, and research. It focuses on improving the quality of school operations through educational governance, enhancing corporate image, increasing efficiency, and creating competitive advantages. Additionally, it emphasizes the importance of quality in higher education for national knowledge creation and social capacity building.

Theory and Concept of Human Resource Management

Theory of human resource management in universities

1. Importance of human resource management in universities

Wright & McMahan (1992, p.298) proposed that strategic human resource management is "a planned pattern of human resource deployments and activities." The significance lies in providing a theoretical foundation for university administration, demonstrating that through systematically designed personnel systems (appointment, promotion, incentives), human resources can be transformed into the capacity to achieve academic and social objectives.

Becker, B. E., & Huselid, M. A. (1998, p.53) proposed that High-Performance Work Systems (HPWS) enhance organizational performance through the integration of practices. The importance lies in the fact that if universities build a consistent set of HRM practices (selection–training, participation–rewards), they can improve teachers' teaching/research efficiency and enhance the school's competitiveness.

Sun Hong (2003, p.3) proposed that the overall quality improvement of the teaching staff largely depends on the level of teacher management in universities. Applying human resource management and development as an important concept to the management and development of universities teaching staff is conducive to opening up new horizons for the construction of universities teaching staff, conducive to the innovation of universities teaching staff construction, realizing the rational and effective allocation of human resources, establishing a more favorable mechanism for attracting, retaining, and developing talents, and fully exerting the best efficiency.

Wright, Gardner & Moynihan (2003, p.46) proposed that HR practices are related to business unit/department performance. The importance lies in the fact that when universities are viewed as organizations composed of multidisciplinary 'units', the study suggests that administration should customize HRM at the faculty/department level to match the goals and evaluation mechanisms of different disciplines.

Smylie, M. A. (2004, p.46) proposed that effective human resource management should be strategic and systematic, carefully planned and coordinated, taking into account the needs of teachers throughout their entire career, and able to promote goals at both the school and system levels.

Scott, Coates & Anderson (2008, p.2) proposed that in times of change, learning-oriented leadership and HRM practices promote organizational learning. The importance lies in the fact that university administration, through HRM, establishes learning communities and faculty development mechanisms, which are conducive to teaching innovation and evidence-driven improvement.

Li Ying (2012, p.119) proposed that strategic human resource management emphasizes making human resource management strategic, competitive, and

systematic. It focuses on scientifically introducing talent, reasonably cultivating talent, and being able to fully motivate talent to achieve rational and strategic talent utilization. This allows universities to consistently maintain a strong competitive advantage, thereby forming strategic organizational development capabilities.

Li Ying & Sun Jianpeng (2013, p.120) proposed that introducing strategic human resource management concepts into the construction of university teaching staff is a significant advancement in university faculty management. It ensures that the universities' teaching staff moves towards the goals of good quality, reasonable structure, and stable development. It also guarantees that universities continuously enhance their competitiveness, enabling the school's progress to synchronize with national development. Building a sound faculty structure and promoting the university's sustained competitiveness is not only the goal of the university's talent strategy but also an important task for the development of the national education system.

Yang, G. (2015, p.2) proposed that human resource management is a vital foundation for the survival and development of universities. Teacher training in universities is the core content of universities' human resource management, and it is also a fundamental measure to achieve sustainable development and improve the quality of talent cultivation in Chinese universities.

He Junyi (2018, p.20) proposed that integrating the concept of human resource management into higher education institutions helps teachers improve their professional development capabilities and also aids universities in enhancing their teaching standards. By designing a scientific and reasonable teacher training system, favorable conditions are created for teachers' professional development, which can both improve teachers' overall quality and strengthen their sense of belonging.

Yu Yuxian (2019, p.137) proposed that human resource management for university teachers is a core component of university management, playing a significant role in the daily operations and subsequent reforms of university management work. Analyzing its development status and taking the requirements of universities management system reform as a starting point, any institution can only

maximize the advantages of teacher human resource management in the area of core competitiveness if it possesses sufficient resources in terms of material resources, financial resources, and human resources. This ensures that the daily human resource management work and innovation in universities can keep pace with the times, ultimately enhancing the core competitiveness of the Universities while also achieving the reform and innovation of the universities' management system.

Evers, A. T. (2021, p.33) proposed that the core of school human resource management and human resource development policies lies in professional development. Schools can identify the influencing factors that have motivating (or inhibiting) effects on professional development through a range of organizational factors (such as organizational characteristics, structure, culture, and socio-psychological relationships) and task factors (such as participation in decision-making, autonomy, and the learning value of functions). This helps school leaders and human resource development specialists to more effectively guide the enhancement of teachers' professional capabilities.

Seezink, A., & Poell, R. (2021, p.159) proposed that under human resource management, if schools maintain highly transparent human resource policies, teachers will have a clearer understanding of their professional development opportunities. This transparency effectively lowers the psychological threshold for teachers who intend to invest in professional development, as they are clearly aware of the steps they need to take. When teachers do not feel supported by management, they may have concerns about activities that require financial and time investments. Clearly communicated and transparent human resource policies can play a key role in this regard.

Nicolás-Agustín, Á. (2022, p.406) proposed that human resource management (HRM) practices play a bridging role in digital transformation. By establishing a strategic HRM methodology and implementing HR practices in a digital environment, a more flexible organizational structure can be built. These initiatives can effectively enhance teachers' professional development, strengthen organizational belonging,

stimulate innovative thinking, and inject more vitality into the school's digital transformation.

Purwanto, S. (2025, p.10) proposed that under human resource management, adopting strategic and adaptive human resource management strategies, effectively utilizing technological means, can well balance global integration and local responsiveness, can invest in global talent management, can cultivate cross-cultural capabilities, and can proactively respond to external challenges and risks. This provides practical guidance for human resource leaders and executives, helping them optimize human capital allocation and achieve sustainable competitive advantage in the global market.

In summary, the importance of human resource management refers to its role as the core support for the construction and development of the faculty team in higher education institutions. Through strategic, systematic, and scientific human resource allocation, it achieves the reasonable introduction, effective training, and continuous motivation of talent, thereby promoting the quality and depth of teachers' professional development. Effective human resource management can not only optimize the structure of the teaching staff and stabilize the talent pool but also establish mechanisms conducive to attracting, retaining, and developing outstanding teachers, enhancing teachers' professional identity and sense of belonging, and promoting the improvement of teaching quality and talent cultivation levels. At the same time, it integrates teachers' professional development throughout their entire career, combining organizational structure, culture, systems, and task factors to create a positive environment that promotes the enhancement of teachers' capabilities, thereby increasing the core competitiveness of higher education institutions, achieving sustainable development, and aligning school development with national education strategies.

2. The current situation of human resource management in universities

Abiodun-Oyebanji, O. (2012, p.157) proposed that under human resource management, the main issue currently facing the university system in Nigeria is personnel allocation. Surprisingly, while the university system is capable of cultivating

the required talents, it struggles to retain them. The human resource situation in many Nigerian universities today is concerning and unsatisfactory, which can be attributed to numerous problems faced by the country's university system. These issues include insufficient funding, over-enrollment, and a severe phenomenon of 'brain drain.' All these factors have significantly impacted the human resource situation in many Nigerian universities. Therefore, we recommend that universities strengthen their faculty development by providing further training, organizing domestic and international academic conferences, and hosting seminars.

Teir, R. A. A., & Zhang, R. Q. (2016, p.881) proposed that regarding the eight basic practices of human resource management, research results show that most Palestinian institutions invest considerable effort in recruitment and selection, dismissal processes, performance evaluation, risk management and safety measures, compensation management, and labor relations. However, there are significant shortcomings in key areas such as professional training and development, human resource systems, and technology.

Nguyen, T. H. (2016, p.245) proposed that in Vietnam, although four universities place great importance on enhancing the formal qualifications of teachers in human resource management, there are very few organized professional development courses for teachers to enhance their research capabilities. However, research-oriented universities in other regions typically view the cultivation of research careers as an institutional responsibility, not only by improving the formal qualifications of teachers but also by providing short-term R&D training courses for researchers at different career stages.

Allui, A., & Sahni, J. (2016, p.369) proposed that the study discuss six major practice areas of human resource management in Saudi universities. The research results indicate that in Saudi universities, the time and funding invested in faculty professional development and training are often regarded as non-essential expenditures, failing to realize their intended value. Saudi universities face significant challenges in talent development, particularly in building the faculty team, and there is an urgent need to enhance the level of human resource management practices.

Performance evaluation and compensation systems can effectively guide academic staff in their work and ensure that their activities align with the institution's strategic planning and human resource management objectives.

Pandit, J. M., & Paul, B. (2023, p.19) proposed that current universities still exhibit a conservative approach to human resource management, and this rigid attitude urgently needs to be broken through innovative management practices, especially by conducting practical training. Observations reveal that Universities teachers generally lack professional training in technology application and research methodology. Enhancing teachers' professional capabilities in emerging fields has become a top priority for universities. At the same time, it is also quite necessary to tailor onboarding training programs for new employees, as this can help them quickly familiarize themselves with the existing rules and procedures within the Universities. It is worth noting that there is a noticeable randomness in the professional level of the current teaching staff.

Zhang Yusheng. (2023, p.68) proposed that the core content of college human resource management is the construction and development of faculty teams, which directly affects the quality and development level of higher education. Its current situation can be summarized as follows: First, the aging trend is evident. As the faculty team in colleges continues to expand, the second, the imbalance in academic disciplines. In some universities, the faculty force for certain traditional subjects is relatively large, while that for emerging interdisciplinary fields and frontier areas is relatively weak. Third, the research pressure on teachers is significant. Some teachers place too much emphasis on research, spending insufficient time and effort on teaching work, which affects the quality of instruction. Fourth, the construction and importation of an internationalized faculty team is inadequate.

Wu Wenyang. (2023, p.68) proposed that the current situation of human resource management in universities is as follows: First, there is information asymmetry. Due to different sources of information, poor communication channels, and insufficient sharing, decision-making in universities' human resource management is unscientific and inefficient. Second, the data is inaccurate. The sources of data in

university human resource management are complex, with various types of data, and the collection and processing of data are not timely or accurate, leading to managers being unable to accurately understand the current state of human resources and the existing problems. Third, the management methods are singular. Most universities adopt traditional manual human resource management methods, which are inefficient and difficult to meet the needs of human resource management in universities.

Long Tao. (2025, p.165) proposed that currently, the evaluation mechanism for human resource management in Chinese universities still emphasizes quantitative indicators such as the number of papers and research projects, neglecting the contribution capabilities and long-term development potential of young talents in education, social services, and long-term value creation. For young research talents, an excessive focus on short-term research results may lead to a neglect of long-term academic accumulation and innovative breakthroughs. Under the system of 'either promotion or departure', young talents are prone to career anxiety, which is detrimental to their dedication to teaching and research work.

Teng Huibo (2025, p.22) proposed that higher education institutions face numerous challenges in human resource management due to changes in the external environment and internal management adjustments, particularly influenced by policy guidance, economic conditions, and technological transformations. With the optimization and adjustment of disciplines, the development of emerging interdisciplinary fields, and changes in management models, universities may encounter issues of talent structure imbalance, such as shortages in certain areas while experiencing redundancy in other positions. To address this risk, universities need to establish a flexible personnel allocation mechanism, develop a scientific talent reserve plan, and conduct regular evaluations and dynamic adjustments to ensure that human resource planning closely aligns with the overall development strategy of the institution, providing a solid human resource guarantee for stable development.

Qiu Xiaolan & Lü Benyan. (2025, p.22) proposed that talent loss has always been a major challenge in the human resource management of private universities. Research has found that the lack of career development opportunities is a reason for talent loss. Compared to public universities, the career advancement pathways in private universities may be relatively narrow, and faculty and staff may feel a lack of professional development space. In private universities, due to limitations in resources and funding, promotions may be relatively slow, and faculty and staff may face limited opportunities for advancement. The lack of career development opportunities may also lead to dissatisfaction and fatigue among faculty and staff, affecting their work motivation, thereby exacerbating talent loss.

In summary, the current situation of human resource management in universities is mainly reflected in conservative talent management methods, insufficient investment in professional training for teachers, and an imbalanced structure of the faculty team. On one hand, many universities have relatively well-established basic processes such as recruitment, performance evaluation, and compensation management, but there are significant shortcomings in professional training, enhancement of research capabilities, and the construction of an international faculty, especially in emerging interdisciplinary and cutting-edge fields where faculty reserves are weak. On the other hand, due to factors such as insufficient funding, policy orientation, information asymmetry, and inaccurate data, the scientific nature of human resource decision-making and management efficiency is lacking, and management methods still rely mainly on traditional manual processes, making it difficult to adapt to the demands of digitalization and diversification. At the same time, the faculty team faces issues such as aging, uneven discipline development, excessive research pressure, and limited career advancement opportunities, leading to a lack of motivation and space for continuous development among some teachers, increasing the risk of talent loss. Therefore, universities urgently need to optimize talent structure, improve career development mechanisms, increase investment in training and development, and build a flexible, efficient, and sustainable support system for professional development of teachers

to enhance the level of human resource management and ensure the quality of higher education.

3. The application of human resource management in university management

Zhou Qin & Zhou Yafu (2005, p.21) proposed that the application orientation of strategic human resource management in university faculty teams is specifically manifested in achieving three unifications: unifying the school's vision with individual behavior, unifying individual performance with human resource incentive policies, and unifying teachers' individual career development with the school's strategy.

Javed, S. (2019, p.1246) proposed that under human resource management, schools build a complete support system that transitions from "retaining professional identity" to "activating intrinsic motivation," and then to "cultivating professional awareness." This can be achieved by stabilizing teacher identity through tiered career paths and differentiated policies, replacing singular rewards with professional capital (autonomy, curriculum leadership, cross-school research, and visibility of outcomes), and stimulating intrinsic motivation for continuous improvement. At the same time, evidence-based teaching research, peer review, and professional certification will help teachers establish authoritative, evidence-based professional judgment in the classroom, school, and even the public education sector, ultimately realizing an organizational mission centered on professional development.

He Yumei (2019, p.41) proposed that under human resource management, based on the school's faculty development goals, the Teacher Development Center has designed training programs, developed learning content suitable for multiple platforms, established a teacher learning community within the system, promoted remote and blended training, and facilitated teachers' professional development. Teachers' professional development should serve the overall development strategy of the school, innovate training models, conduct targeted training as needed, transform the top-down training organization model, improve training effectiveness, and promote lifelong learning for teachers, which can effectively enhance teachers' quality and capabilities and achieve their career development goals.

Chen Shanshan (2020, p.62) proposed that in human resource management, the professional development of teachers should focus on strengthening professional capabilities. First, attention should be paid to the training and evaluation of teachers. A comprehensive and open evaluation system for educational teachers based on human resource management should be established, employing a "selection-training-evaluation" process tracking mechanism with strict entry and evaluation standards. It is essential to combine general training with targeted training to ensure fairness and justice in the participation of all teachers in learning and growth, while also meeting the professional needs of different types of teacher groups. Secondly, the educational guidance of teachers should be emphasized. Teachers should consciously adhere to professional ethical standards in their work, uphold a correct worldview, outlook on life, and values, and educate students with profound knowledge. Finally, attention should be paid to the institutional constraints on teachers. Open universities should establish a set of rules and regulations that align with their characteristics, similar to local universities, ensuring that there are legal guidelines to follow and regulations to comply with, gradually enhancing the self-restraint and control capabilities of open education teachers, and comprehensively improving the school's image in society.

Zhao Na (2021, p.240) proposed that applying human resource management innovatively to the professional development of open education teachers is the result of modern multidisciplinary integration. Utilizing advanced human resource management methods scientifically and rationally, systematically managing teacher professional development issues, and formulating scientific and feasible human resource planning can provide a reasonable and healthy development environment for teachers' professional growth, thereby building a more comprehensive, open course teacher team.

Sušanj, Z. (2022, p.486) proposed that the project utilize the latest empirical analysis from the international project 'Modernizing Higher Education Institutions through Strengthening Human Resource Management Functions' to explore how to adjust current human resource management practices to meet challenges. The data

show that, at the institutional level, higher education institutions should take systematic responsibility for the efficiency and development of their academic staff. At the individual level, teachers should proactively take on the responsibility of planning their career development paths within the institutional framework, autonomously planning different career development paths based on the needs of higher education institutions, while managing their own efficiency improvement and development process, and actively participating in helping universities build appropriate human resource strategic solutions.

Mohiuddin, M. (2022, p.1) proposed that a quantitative research method was adopted to investigate the factors affecting the sustainability of human resource management in universities. It was found that human resource practices, social factors, psychological factors, employer branding, and economic factors have a positive and significant impact on the sustainability of human resource management in universities. Therefore, it is essential to consider the implementation of appropriate human resource management practices along with relevant socio-economic and psychological support to achieve the sustainability of human resource management in universities, thereby enhancing the competitiveness of higher education institutions such as universities.

Goulart, V. G. (2022, p.8) proposed that under human resource management, universities and human resource management institutions build a comprehensive education system that integrates personal development goals, revealing the core skill set required for future positions in the era of digital transformation. With technological advancements, professional qualification certification needs to go beyond purely technical aspects. The core skills identified by the research include: entrepreneurial vision, innovative thinking, holistic perspective, collaboration ability, programming literacy, and awareness of ethics and social responsibility. This confirms the fundamental role of universities in guiding students' career planning, emphasizing the need to consider their background, employment choices, and opportunities, and to help students formulate long-term career planning educational concepts.

Chowdhury, S. (2023, p.25-26) proposed that four major research directions for the theoretical and empirical development of artificial intelligence research in the field of human resource management. The identified research focuses are: 1) validating the artificial intelligence capability framework; 2) the impact of artificial intelligence transparency and trust; 3) the prerequisites for artificial intelligence employee collaboration and its impact on business performance; 4) knowledge management strategies for enhancing employee skills and retraining, and their impact on artificial intelligence employee collaboration.

Onyekwelu, R. A. (2024, p.202) proposed that the school enhances subject knowledge levels through continuous teacher training workshops, establishes mentorship programs for both experienced and new teachers to provide professional guidance, allows teachers ample time to learn new teaching methods to improve practices, and permits teachers to participate in peer collaboration groups to exchange best teaching ideas and design course models (enabling teachers to clearly understand quality teaching paradigms). These teacher development strategies effectively enhance teachers' abilities to develop new skills, innovate teaching methods, and optimize teaching practices, thereby ensuring teaching quality.

In summary, the application of human resource management is mainly reflected in the organic integration of individual teacher career development with the overall strategy of the school, supporting teachers' professional growth through strategic, systematic, and diversified measures. The core practices include: 1) Leading teacher behavior with the school vision, aligning performance with incentive policies, and integrating teacher career planning into school development goals. 2) Building a support system that stabilizes professional identity, stimulates intrinsic motivation, and cultivates professional competence, promoting continuous improvement through tiered career paths, differentiated policies, and professional skill enhancement. 3) Relying on the Teacher Development Center to carry out multi-platform and multi-model training and learning community construction, achieving targeted training and lifelong learning. 4) Establishing a scientific 'selection-training-evaluation' mechanism and an open and fair evaluation system, using modern

human resource management methods for scientific planning and systematic management, providing a good growth environment and career support. 5) Encouraging teachers to proactively plan their career paths, and under the background of digital transformation, continuously enhancing skills by integrating artificial intelligence and human resource management strategies, cultivating innovative vision, innovative thinking, collaboration skills, and social responsibility. 6) Enhancing teachers' professional abilities, optimizing teaching practices, and ensuring teaching quality through continuous training, mentorship systems, and peer collaboration.

Concept of human resource management

Human resource management is an organizational management idea that regards teachers as the most critical "strategic resource" of the school, which breaks through the traditional paradigm of treating employees as "costs" or "tools", and advocates the development and support of teachers' potential through systematic human resource activities, such as recruitment, training, motivation, performance evaluation and career planning. Its core connotation is embodied in: first, it combines the material, psychological and social needs of teachers with the goals of the school, and believes that only by meeting their physiological, safety, belonging, self-esteem and self-realization and other multi-level needs can their work enthusiasm and creativity be stimulated; The second is to emphasize the establishment of a win-win employment relationship, and enhance teachers' sense of ownership and professional identity through their participation in decision-making and cooperation. The third is to integrate teachers' continuous professional development into the school's strategic management, so as to achieve the organic unity of personal growth and education quality improvement. The development of theories can be divided into the embryonic period (scientific management and bureaucracy in the early 20th century), the emerging period (the Hawthorne experimental and interpersonal relations school in the 1940s–60s), the mature period (the hierarchy of needs and motivation theory in the 1960s–80s), and the modern stage (the integration of

strategic human resource management and professional development since the 1980s).

Wright & McMahan (1992, p.298) proposed that human resource management (strategic HRM) is “the pattern of planned human resource deployments and activities intended to enable the firm to achieve its goals” — emphasizing the institutionalization and planning of HRM as well as its linkage with organizational strategy (vertical fit / horizontal fit).

Delery, J. E., & Doty, D. H. (1996, p.802) proposed that human resource management should be theorized as different modes (universalistic, contingency, configurational), in which the causal path between human resource management and organizational performance depends on specific supporting practices and organizational context (academic school perspective).

Guest (1997, p.263) proposed that human resource management is a distinctive approach that links HR policies to desirable employee outcomes (commitment, flexibility, quality) and organisational outcomes, and emphasises the balance between utility and humanism (from a critical theoretical perspective).

Boxall & Purcell (2003, p.1) proposed that human resource management refers to “all those activities associated with the management of employment relationships in the firm” — that is, a general term encompassing activities such as recruitment, training, performance management, incentives, and employee relations, emphasizing HRM as an overall framework and set of practices for managing employment relationships.

Runhaar, P. R. (2008, p.17) proposed that human resource management (HRM) has been accorded significant attention in educational policies, being recognized as an effective tool for promoting teacher professional development, such as feedback tools and personal development plans. HRM tends to adopt a broader perspective on the teaching profession, emphasizing the synergistic relationship between teacher professional growth and school development. The implementation of HRM is aimed at stimulating teachers' reflective mindset and fostering their tendency to seek

feedback. In other words, educators are encouraged to take on the role of so-called "reflective practitioners."

Armstrong, M. (2009, p.4) proposed that human resource management involves all aspects of how people are hired and managed in an organization, covering activities such as strategic human resource management, human capital management, knowledge management, corporate social responsibility, organizational development, resource allocation, learning and development, performance and compensation management, employee relations, employee benefits, and employee services. If this framework is mapped to teacher professional development, its key elements can be focused on: strategic teacher planning, teacher human capital appreciation, teaching knowledge sharing and innovation, educational ethics and social responsibility, school improvement and teacher community construction, precise allocation of high-quality teachers, continuous professional learning, teaching performance and motivation, teacher community culture, teacher well-being and support system, etc.

Fan Yanfeng (2011, p.96) proposed that human resource management refers to the planned pattern of various deployments and activities of human resources in order to enable an organization to achieve its goals. It refers to the organization adopting a strategic perspective and method to organize, implement, and control human resources. By ensuring that the organization acquires employees with good skills, the organization maintains a sustained competitive advantage, thereby forming the organization's strategic capabilities, relying on people to achieve strategic goals, and relying on core human resources to build competitive advantages. This article explores the methods and measures of applying strategic human resource management to the investment management of faculty construction in universities and colleges, in order to maximize the benefits of this investment.

Smith, R. (2013, p.4) proposed that human resource management refers to the balance between the mission requirements of the school and the individual pursuit of work value. It emphasizes that the value of people is paramount in any organization, especially in schools. It focuses on all factors that affect the

effectiveness of faculty and staff. It is about considering the needs of teachers. It is a care for people, all faculty and staff, and their needs.

Kramar, R. (2014, p.1069) proposed that the ILO / Decent Work / International Labour Organization documents proposed that HRM should be embedded in the principles of decent work: HRM policies should ensure basic labor rights such as fairness, non-discrimination, safety, and social security (particularly important in multinational or compliance discussions).

Runhaar, P. (2017, p.6) proposed that human resource management refers to the process by which schools design pre-service teacher training programs, optimize the induction plans for new teachers, and tailor development content for experienced teachers in order to achieve the continuous professional development of educators. Continuous professional development should be viewed as a lifelong learning process that extends from pre-service education to retirement, covering all stages of a teacher's career.

Da Silva, L. B. P. (2022, p.2) proposed that human resource management is the process of managing people within an organization, encompassing all techniques used to manage personnel, ensuring they are up-to-date, qualified, and aligned with stakeholder expectations, while also focusing on activities related to individual professional qualifications, learning, and training. It also includes outlining organizational structures, improving communication, and developing ethical and social principles.

Stone, R. J. (2024, p.2) proposed that human resource management refers to adding value by designing and implementing human resource policies and practices that motivate employees to translate their expertise into productive behavior. It involves the productive use of people to achieve the organization's strategic business goals and meet individual employee needs.

Mainali, B. P. (2025, p.15) proposed that strategic human resources refer to the improvement process of teacher training programs from three dimensions: enhancing professional quality, connecting teaching practices, and optimizing resource allocation. By strengthening the effectiveness of human resource

development, school decision-makers can make informed judgments based on research data, improve the teacher education system, promote professional training for teachers based on strategic human resource development, enhance teachers' teaching effectiveness and professional capabilities, achieve professional development for teachers, and consequently translate directly into improved student academic performance.

Wu Shaohua (2025, p.3) proposed that human resource management refers to the use of modern scientific methods to provide reasonable training, organization, and allocation of individuals, combined with certain material resources, maintaining the optimal ratio of human and material resources. At the same time, it involves appropriate inducement, control, and coordination of people's thoughts, psychology, and behavior, fully leveraging individuals' subjective initiative, ensuring that people are utilized according to their talents, that the right people are matched with the right tasks, and that management activities are aimed at organizational goals. Macro management refers to human resource management conducted at the national or regional level, while micromanagement refers to human resource management conducted at the grassroots organizational level. Generally, human resource management refers to micro management. Macro management involves planning, organizing, and controlling the overall human resources of society to adjust and improve the status of human resources, making it suitable for the requirements of social reproduction, ensuring the operation of the social economy, and achieving the goals of social and economic development.

Ulya, K., Hamid, A., & Hayati, N. (2025, p.166) proposed that human resource management refers to the management activities that ensure the quality of human resources in the field of education. This is a core factor determining the success of educational institutions. Teachers, as the frontline force of educational implementation, are directly involved in shaping students' character, knowledge, and skills. Therefore, the professional development of teachers is an absolute priority that all educational stakeholders (including the government, foundations, and educational administrators) must consider. In this context, human resource

management in educational institutions is essential to ensure that teachers possess adequate professional competence, high professional standards, and a willingness for continuous learning and self-development.

In summary, human resource management refers to the strategic resource of teachers as the core of the school, where systematic human resource activities include recruitment, training, motivation, performance evaluation, and career planning. It is an organizational management concept that continuously supports the professional development of teachers. It not only focuses on meeting the multi-level needs of teachers in terms of material, psychological, and social aspects but also integrates professional Development into the strategic management of the school. Human resource management emphasizes that professional development is a lifelong learning process that spans from pre-service education to retirement, covering all stages of a teacher's career. Through measures such as strategic planning, precise training, resource sharing and innovation, and optimization of career pathways, schools can provide teachers with opportunities for continuous learning and growth, enhance their professional capabilities and teaching effectiveness, and build intrinsic motivation for teachers, thereby strengthening professional identity and achieving a collaborative win-win situation that optimizes the performance of teachers, students, and the organization.

Theory and Concept of Professional Development

Theory of professional development

1. Importance of professional development in universities

Harwell, S. H. (2003, p.7) proposed that professional development has two core advantages: creating an ideal interactive communication environment and providing participating teachers with long-term practical learning opportunities. The contextualized teaching achieved through teacher professional development is equally effective in changing teacher behavior as contextualized teaching in the classroom is in improving student behavior.

Steinert et al. (2006, p.498) proposed that faculty development improves teaching knowledge, skills, and attitudes when it is interactive and sustained. Importance for universities: The evidence from medical education supports promoting interactive, long-term PD models to faculty development in other disciplines.

Hattie & Timperley (2007, p.82) proposed that the powerful role of feedback in learning. Importance for universities: Immediate, targeted feedback in professional development can accelerate teachers' instructional improvement; universities should establish classroom feedback and teaching evaluation systems.

Desimone & Stuckey (2014, p.44) proposed that professional development effectiveness depends on the interaction between professional development features and teachers' context (leadership, collegial support).

Desimone, L. M. (2015, p.252) proposed that professional development is the key path to improving teachers' teaching effectiveness and students' learning outcomes. By focusing on the five core practices of subject content, active learning, coherent design, continuous investment and collective participation, it can not only effectively change the routine behavior of the classroom, but also play a precise supporting role in differentiating the needs of teachers, closely integrating daily teaching, and adapting to the complex environment of urban schools, to become the core lever to promote educational equity and system improvement.

Darling-Hammond, L. (2017, p.7) proposed that professional development is a key mechanism to support the development of core competencies such as critical thinking, problem solving, and collaboration in the 21st century. Through content focus, classroom embedding, continuous collaboration, and evidence-based improvement, high-quality professional development can not only break through the limitations of traditional inefficient training, directly improve students' academic achievement and narrow the educational gap, but also build a professional community and leadership of teachers, and promote systemic long-term change and educational equity in schools.

MacPhail, A. (2019, p.209) proposed that professional development is not only the core path to improve the teaching and research ability of teachers in colleges and universities, but also a key mechanism to ensure the quality of teacher education and promote students' effective learning. Faced with the reality of diverse roles and complex responsibilities, teacher educators often lack systematic induction preparation and continuous support and need to fill the structural gaps through self-driven professional learning, peer collaboration, updating teaching practices, and improving research capabilities. The study points out that professional development can help alleviate the pressure of the role transformation from "teacher to teacher researcher", strengthen the ability of "second-order teaching" (i.e., teach others how to teach), deeply integrate teaching and research, reconstruct the professional identity of teacher educators, improve their legitimacy and influence in academic institutions, and ultimately feedback the overall quality and sustainable development of the teacher education system.

Ji Chunmei. (2020, p.23) proposed that the teacher professional learning community guided by professional development is an effective measure for multiple breakthroughs and comprehensive development in teacher professional development. It will bring changes from the micro level of teachers' behaviors and roles to the macro level of the structure, field, and values of the teaching workforce in traditional teacher development. These changes include a shift from "individualism" to "collectivism," a redefinition of identity from "recipient" to "creator," a transformation of the field from "learning space" to "living space," and a structural reconstruction from "government-led" to "co-led."

Zhong, W. (2021, p.50) proposed that the professional development of local Universities teachers can promote the achievement of high-quality talent cultivation goals in local universities. Analyzing the reasons for the stagnation of professional development among local universities' teachers can help explore precise optimization paths for their professional development, assisting local universities in adapting talent cultivation to the new patterns of economic development and fostering an intrinsic emergence of high-quality talent cultivation models.

Fernández-Batanero, J. M. (2022, p.6) proposed that professional development has become a central pillar in improving the quality of education in the digital age. Teachers generally lack systematic ICT training and digital teaching capabilities, which are key to achieving the deep integration of technology and pedagogy to promote meaningful learning for students. Professional development not only helps teachers master composite competencies such as TPACK (technology-teaching-subject integration) but also enhances teachers' confidence in technology and teaching innovation through collaborative, practice-oriented training. Therefore, continuous digital competency development is a necessary path to close the education gap, adapt to educational change, and build a high-quality education system, and must extend from teacher pre-service training to in-service support to truly unleash the transformative potential of technology in teaching and learning.

Wang Jikang. (2022, p.46) proposed a framework for effective professional development based on the current situation and issues presented from an international comparative perspective. This framework is beneficial for enhancing the embodiment of teacher professional development, focusing on the real developmental needs of teachers, breaking down barriers to professional development, optimizing the content supply for professional development, and constructing a systematic support system. At the same time, this framework can provide important experiential insights, targeted issues, and breakthrough paths for various stakeholders such as national education policymakers, professional development providers, and school administrators, which can improve the quality of professional development and promote lifelong learning for teachers.

Fernandes, S. (2023, p.2) proposed that professional development is not only a key mechanism to improve teaching quality in higher education but also a core path for teacher identity construction, teaching practice transformation, and student learning effectiveness improvement. Systematic and practice-oriented teaching training can significantly improve teachers' mastery of teaching methods, teaching confidence, and self-efficacy, and promote their transformation from "knowledge transmitters" to "learning facilitators". The lack of follow-up support and collaboration

mechanisms for teachers limits their ability to translate new ideas into classroom practice. Therefore, the design of professional development should focus on content relevance, active participation, continuous feedback, and personalized guidance, and ensure that the training results are truly implemented through the establishment of teaching communities, peer mentoring, and institutional support.

Xia Yan. (2023, p.71) proposed that promoting the professional development of university teachers is key to enabling teachers to realize their self-worth, improve the quality of talent cultivation, achieve an intrinsic transformation of educational work, and support sustainable social development. It exhibits fundamental characteristics of the unity of self-development and organizational development, the unity of endogenous and exogenous models, and the unity of personalization and diversification. Therefore, Universities management departments and policymakers must keep pace with the times, comprehensively consider external and internal factors, and work together to create an educational ecosystem conducive to teacher growth.

Mavi, D. (2025, p.1013) proposed that professional development is not only a key path to improve teachers' self-efficacy, but also an important mechanism to connect teachers' academic optimism and subjective well-being. The study found that active participation in professional development activities can significantly enhance teachers' self-efficacy, make them more adaptable and innovative in the face of teaching challenges, and improve teachers' professional satisfaction and well-being, thus forming a positive cycle. Therefore, systematic and continuous professional development is not only a "catalyst" for teachers' individual growth, but also a strategic fulcrum for improving the quality of school education and optimizing students' academic performance and mental health.

In conclusion, the importance of professional development refers to its role as a core pathway for enhancing teachers' teaching abilities, research levels, and overall quality. It not only creates an ideal environment for communication and interaction among teachers and provides long-term practical learning opportunities, but also precisely meets the diverse developmental needs of teachers through

content focus, classroom integration, continuous collaboration, and evidence-based improvements. This promotes the optimization of classroom behavior and enhances student academic achievement. At the same time, it helps reconstruct teachers' professional identities, strengthens professional recognition and self-efficacy, drives the shift from individualism to collaborative coexistence, and promotes educational equity and systemic improvement. In the context of digitalization and educational reform, teacher professional development is also an important mechanism for achieving deep integration of technology and teaching, narrowing educational gaps, and building a high-quality education system. More critically, it can unify the goals of teachers' self-development and organizational development, support the improvement of talent cultivation quality, sustainable education development, and enhance teachers' well-being, thus becoming a strategic fulcrum that connects individual teacher growth, school performance optimization, and social progress.

2. The current situation of professional development in universities

Namamba, A., & Rao, C. (2017, p.141) proposed that Tanzania faces limitations in the professional development of higher education teachers, as professional development activities for teachers are often extensive and time-constrained, making it difficult for participants to reflect adequately, which in turn affects the training outcomes and knowledge application. Additionally, due to limited funding, there is a significant investment in the professional development of teachers at the undergraduate level, while the focus at the graduate level is relatively low.

Kasule, G. W., & Bisaso, R. (2019, p.128) proposed that Makerere University and Kampala University have long faced a severe shortage of faculty, and the hired teachers often fail to meet the expectations of stakeholders, showing significant deficiencies in strategic training and development. For example, there is a lack of mechanisms for conducting training assessments based on faculty needs, failure to organize formal and informal training programs at the departmental level to enhance the modern skills and knowledge reserves of staff, and no policies have been established to prioritize investment in the training and development of young teachers. It is evident that if Makerere University and Kampala University do not focus

on cultivating young teachers with long-term service potential and academic advancement opportunities, and continue to invest in older faculty with limited retirement years and insufficient promotion prospects, these two universities will continue to face a serious shortage of senior positions.

MacPhail, A. (2019, p.25) proposed that the current situation of professional development is mainly reflected in three aspects. First, both schools and teachers underestimate the complexity of the multiple roles that teachers face, such as teaching, research, administrative management, and leadership development, while overly emphasizing individualism. However, they neglect the advantages of integrating teachers' unique complementary skills and overlook the power of teacher teams. Second, teachers have a strong desire to seize opportunities for mutual learning, but they mistakenly believe that finding time to communicate and discuss with colleagues is always a stumbling block to achieving this wish, especially for newly hired teachers. Finally, the disconnection that teachers feel from their teaching practice may weaken their discursive influence in campus practices.

Dung, B. X. (2021, p.369) proposed that the faculty strength of master's and doctoral degrees in Vietnam (especially in local institutions) is relatively weak. Teachers often only meet the employment standards set by the education department, rather than actively improving their own professional development levels. Teachers rarely possess professional competence and teaching skills, making it even more difficult for them to engage in research work. Although professional development is an important part of knowledge creation, it is an indispensable component of universities.

Popova, A. (2022, p.107) proposed that many professional development programs in low- and middle-income countries are key tools for governments to enhance teachers' effective teaching skills. The research presents a set of in-service teacher training survey tools aimed at standardizing the reporting criteria for teacher professional development programs, and uses this tool to showcase sample data from 139 government-funded large-scale professional development projects across 14 countries. The study found that there are few incentives for teachers to

participate in professional development, limited opportunities for practicing new skills, and insufficient follow-up support for teachers after returning to their positions. At the same time, professional development programs that link participation to career incentives, focus on specific subjects, integrate classroom teaching practices into training, and include initial face-to-face training tend to achieve higher student learning outcomes.

Vashetina, O. V. (2022, p.101) proposed that the research conducted by Indian scholars focuses on the relationship between teachers' quality of life and the effectiveness of professional development, finding that most Indian teachers have a low level of professional development. The study identifies factors affecting the level of professional development, including low economic status, unfavorable family environment, physical and mental health conditions, and job stability. The researchers also explore the reasons for the obstacles to professional development, such as a lack of time and a lack of responsibility towards professional development activities.

Hayes, K. N. (2025, p.178) proposed that research shows that professional development is gradually formed through an iterative, nonlinear process among the main research dimensions. Qualitative analysis indicates that for most teachers, self-efficacy and teaching practice create a positive feedback loop. Many teachers can adopt reform-oriented teaching methods in science education due to teaching autonomy, which enhances their sense of fairness and self-efficacy. When autonomy is lacking, the sense of fairness and self-efficacy can instead become a resistance to reform. In the process of professional development, compared to common organizational elements such as material resources and laboratory conditions, teachers' professional competence and sense of autonomy play a key role in supporting the implementation of more equitable science teaching practices.

Duan Daiping (2025, p.178) proposed that as higher education is accelerating its digital transformation, the professional roles and development of university teachers are facing new challenges, necessitating a rapid enhancement of their teaching levels and digital literacy. Many teachers encounter confusion in integrating

course design, teaching implementation, and assessment with artificial intelligence technology in their teaching practices, lacking effective pathways for improving digital literacy. To address these issues, many universities worldwide are actively exploring and implementing various professional development programs for teachers. In recent years, Chinese universities have implemented a large number of teacher professional development programs through teaching development centers. Although some achievements have been made, challenges such as insufficient top-level design, unclear implementation paths, and weak sustainability remain. Currently, Chinese scholars' research on professional development programs for teachers in foreign universities mainly focuses on specific cases or methods, lacking systematic organization and in-depth analysis.

Liu Ying (2025, p.178) proposed that Universities teachers lack theoretical knowledge in teaching, especially among newly hired teachers who have not undergone systematic learning in teaching theory. When they first enter the teaching field, they are unable to comprehensively grasp the key points of knowledge. Additionally, due to the lack of grassroots training experience and practical work experience in production and management in enterprises, new teachers tend to rely too much on theoretical instruction during classes, failing to integrate practical teaching. This disconnects theoretical knowledge from practical application, resulting in students' low ability to flexibly apply knowledge. Furthermore, the use of outdated teaching materials has not fully incorporated modern characteristics, leading to a disconnect between the knowledge students acquire and the market demand for talent.

Li Qingyao (2025, p.69) proposed that the current status of the professional development of university teachers is mainly reflected in three aspects. First, young teachers lack teaching practice experience, have insufficient professional abilities, and lack clear goals and plans. Second, there is a lack of understanding of development concepts and insufficient depth in the awareness of professional development. In terms of evaluating positions and assessing teachers, universities place more emphasis on research achievements, neglecting the professional development of

teachers. Third, universities do not invest enough in education and do not pay sufficient attention to the professional development of teachers, resulting in lagging teacher training, outdated education ratings, and inadequate rigor in assessing teaching outcomes.

In summary, the professional development of university teachers is mainly reflected in insufficient training resources and institutional support, uneven development investment, disconnection between training content and teaching practice, and the absence of a career incentive mechanism. Globally, many universities face common issues such as tight training schedules, a lack of diverse formats, insufficient funding, and neglect of the training of newly hired teachers. Teachers often lack systematic learning of teaching theories and practical experience, leading to a disconnect between theory and practice, and a misalignment between teaching content and social needs. At the same time, the complexity of teachers' multiple roles and the advantages of teamwork are often underestimated, resulting in unclear career development paths and a lack of training evaluation and ongoing support based on job requirements. In the context of digital transformation, teachers lack digital literacy in course design, teaching implementation, and evaluation, and there is a lack of effective pathways for improvement. In terms of evaluation systems, research orientation overwhelms teaching orientation, further weakening the systematic and sustainable nature of teachers' professional development.

Concept of professional development

Professional development first began in the mid-20th century and is characterized by short-term, administrative-led training aimed at imparting knowledge and skills to improve teachers' ability to perform their duties. In the 80s and 90s of the 20th century, under the influence of humanism and constructivism, professional development began to pay attention to teachers' reflective practice, autonomy, and situational experience, and advocated cooperative learning and action research. In the 21st century, teacher professionalization has gradually formed a systematic framework, integrated into school reform, professional learning communities, and school-based training, emphasizing continuity, practice, and collaboration. In the past

decade, the development of specialization has shown a trend of diversified innovation, with the help of information technology, blended learning and global vision, more attention has been paid to the individual needs of teachers, the learning effectiveness of students and the construction of teachers' professional identity, to realize the transformation from skills training to professional growth and then to professional innovation, reflecting the professionalism, initiative and development of teachers as the key force of education reform.

Kelchtermans, G. (1993, p.454) proposed that professional development means the process of lifelong learning and growth, in which teachers gradually construct a professional direction as a teacher and a set of subjective educational theories about "how to teach" by accumulating, integrating, and reflecting on their own professional experience. From a biographical perspective, exploring the unique value of teacher professional development can help understand teachers' behavioral motivation, and provide a glimpse into how teachers plan their careers based on their own experiences, how they can integrate major events in their lives with professional development, and integrate them into their teaching styles.

Kedzior, M. (2004, p.9) proposed that professional development means a continuous, collaborative, practice-oriented learning process that aims to enhance teachers' professional knowledge and pedagogical abilities through teachers' reflection on their teaching practices, collective research and improvement among peers, and systematic support linked to student performance, to ultimately promote student learning outcomes.

Borko, H. (2010, p.548) proposed that professional development means teacher professional development is a professional learning process that aims to promote teachers to continuously update their subject knowledge, teaching strategies and students' ability to understand students through systematic learning opportunities that are rooted in the teaching field, teacher-centered and student-centered, to improve the quality of teaching and promote the continuous improvement of students' learning outcomes.

Ávalos, B. (2011, p.10) proposed that professional development refers to teachers' learning that transforms knowledge into effective classroom practice and to the systems that support such transformation.

Opfer & Pedder (2011, p.376) argued that professional development outcomes depend on teachers' professional learning ecology—the combination of individual beliefs, school culture, and policy environment that together shape learning.

Qi Yundong (2012, p.33) proposed that professional development refers to all activities that teachers engage in to enhance their work throughout their careers. In this process, teachers broaden their professional connotations and improve their professional levels through continuous learning, reflection, and exploration, ultimately reaching a state of professional maturity. It emphasizes lifelong learning and growth for teachers, encompassing the entire process from pre-service training, new teacher induction, to in-service training, until the end of their teaching careers.

Zhu Xudong. (2014, p.10) proposed that professional development refers to the process in which teachers utilize experience, reflection, evidence, data, concepts, and theories to achieve professional goals such as teaching students, nurturing them, and providing services.

Sancar, R. (2021, p.2) proposed that professional development is a continuous, holistic and multi-dimensional interactive process that extends from the stage of teacher education to retirement, and its goal is to dynamically improve teachers' professional knowledge, skills, beliefs and practical abilities by integrating key variables such as individual teachers' characteristics, teaching content, teaching strategies, student outcomes, school environment, curriculum, policy reform, collaboration mechanisms and support activities, to improve students' learning effectiveness and school education quality.

Zhang Huaiqing (2022, p.54) proposed that the professional development of teachers in the intelligent era, from the perspective of learning science, is a systematic process that accompanies teachers' careers with intelligent technology,

achieving lifelong, continuous, and professional development in knowledge, skills, and attitudes through continuous learning.

Li Haiming (2023, p.23) proposed that professional development refers to the process in which teachers seek professional avenues and continuously engage in research and learning, embodying the practice of lifelong learning. It is a process of continuously improving teachers' comprehensive quality and abilities, as well as the internalization and enhancement of their overall qualities. It is also a process in which teachers' professional identity gradually takes shape.

Sun Gangcheng & Song Xiaoge (2024, p.45) proposed that professional development is a dynamic integration and mutual transformation of Content Knowledge (CK), Pedagogical Knowledge (PK), and Technological Knowledge (TK), forming a professional development framework centered on Technological Pedagogical Content Knowledge (TPACK). By integrating TPACK with information resources, it expands subject knowledge, enhances the relevance and effectiveness of teaching, improves subject understanding, and promotes broader interdisciplinary comprehensive practices. This achieves an organic integration of knowledge, skills, teaching methods, and learning methods, driving innovative practices. Labor education teachers can only better promote professional development by effectively integrating professional knowledge, skills, methods, and development resources, means, and capabilities.

Sims, S. (2025, p.215) proposed that professional development is a systematic and institutionalized continuous learning process, and its core goal is to achieve continuous improvement of teaching behavior and ultimately improve students' learning outcomes by improving teachers' "insight" into teaching and learning, stimulating their "motivation", developing specific "teaching techniques", and embedding changes into daily teaching practice.

In conclusion, professional development refers to a continuous and lifelong process in which individuals enhance their professional knowledge, skills, and competencies through active learning, collaboration, and critical reflection. It enables

practitioners to adapt to changing professional demands, improve their professional practice, and achieve sustained career growth.

Characteristics of professional development

Desimone, L. M. (2009, p.183) proposed that content focus, active learning, coherence, duration, and collective participation play a decisive role in improving teachers' knowledge and skills, improving teaching practice, and are expected to promote students' academic progress.

Bao Cong (2010, p.87) proposed that teachers' professional development paths and models are diverse, and their main characteristics are: content focus, active learning, collaboration, reflection, etc.

Merchie, E. (2016, p.7) proposed that the review studies explore or test the impact of these effective core features on multiple elements of professional development plans (PDI). These elements include: content focus, pedagogical knowledge, coherent and evidence-based, ownership, duration, collective collaborative participation, school or site-based, active learning, reflection, and trainer qualifications.

Darling-Hammond, L. (2017, p.4) proposed that we systematically review methodologically sound studies obtained through extensive literature searches over the past three decades to identify key elements of efficient professional development models. Using this methodology, we have distilled the following characteristics of effective teacher professional development: content focus, active learning, collaboration, uses models of effective practice, provides coaching and expert support, feedback and reflection, and duration.

Lei Wei (2018, p.41) proposed that as multi-role in knowledge dissemination, invention, and application, college teachers have different growth methods, professional requirements, and professional orientation from primary and secondary school teachers, which means that the professional development of young teachers in colleges and universities has its uniqueness. To sum up, the key characteristics of professional development of college teachers are: active learning, collaboration, duration, practice, reflection, etc.

McChesney, K. (2021, p.5) proposed that in studies that explore the key features of professional development design associated with higher impact, positive teacher professional development design characteristics include content focus (subject-specific curriculum focus), extended duration, student learning outcomes, job-embeddedness, and opportunities for collaborative and active learning.

Xu Bojun (2022, p.7) proposed that educator-type teachers are a kind of professional-oriented value guidance, which has its professional characteristics and the requirements of the times. The professional characteristics of educator teachers are mainly reflected in educational understanding (content focus), educational practice (active learning, collaboration, duration), and educational thinking (reflection, summary).

Zhang Hui (2025, p.81) proposed that the proposal of the spirit of educator has injected new impetus and vitality into the professional development of "dual-teacher" teachers, and the professional development of "dual-teacher" teachers should start from theoretical cognition, content focus, collaboration, duration, reflection, sublimate their emotional experience, strengthen the quality of will, pay attention to hands-on practice, and make efforts from multiple dimensions such as theoretical cognition, emotional internalization, continuous internalization, and action support, to promote the steady improvement of the professional development level of "dual-teacher" teachers.

Liu Xiaohong (2025, p.65) proposed that the systematic construction of a four-dimensional linkage spiral teacher professional development model of "teaching (lesson demonstration)-learning (active learning, collaboration)-research (reflection)-innovation (practical innovation)" provides new ideas for solving the problem of professional development.

Xie Hongyu (2025, p.11) proposed that in the context of new quality productivity, combined with the characteristics of the era of teacher professional development, the characteristics of high-quality professional development are clarified from three aspects: the connotation of the times, the essential characteristics, and the basic goals. Its characteristics include motivating teachers to

active learning, duration, reflection, and providing comprehensive professional development support.

Table 2.1 The results of the synthesis of professional development

[illegible]

According to table 2.1, the researchers analyzed and synthesized documents, concepts, theories, and researches related to professional development of universities new human resources, which consisted of Desimone, L. M. (2009), Bao Cong (2010), Merchie, E. (2016), Darling-Hammond (2017), Lei Wei (2018), McChesney, K. (2021), Xu Bojun (2023), Zhang Hui (2025), Liu Xiaohong (2025), Xie Hongyu (2025). The researcher used the criteria to consider the corresponding characteristics. To use as a framework for research in this study. By selecting characteristics with a frequency of 7 or more. Which can be synthesized in 5 characteristics as follows: 1) active learning, 2) collaboration, 3) duration, 4) content focus, and 5) reflection.

Through the collection of monographs and the use of major databases such as Springer and CNKI, this study summarizes and sorts out the existing research literature at home and abroad, and the above five core contents of professional development are described as follows.

Active learning

Desimone, L. M. (2009, p.184) proposed that teachers' opportunities to engage in active learning are closely related to professional development outcomes. Unlike passive learning, which is characterized by lectures, active learning can take many forms, including observing expert teachers or receiving classroom observations and engaging in interactive feedback and discussion, studying student work in relevant subject areas, and leading discussions.

Bao Cong (2010, p.86) proposed that active learning is the core mechanism of mutual empowerment in education. For teachers, it is a self-driven path of professional advancement. For students, it is a growth ladder for skill enhancement and the budding of innovation, fostering a collaborative teaching and learning environment.

Merchie, E. (2016, p.7) proposed that active learning is achieved through continuous exploration of practice and reflection on professional and academic knowledge to realize inquiry-based learning. When teachers become co-creators of knowledge rather than consumers, their resistance to professionalization significantly decreases.

Darling-Hammond (2017, p.7) proposed that active learning is also an "umbrella" element, typically encompassing collaboration, mentoring, feedback, reflection, and the application of demonstration teaching. Active learning means moving away from traditional, generic, lecture-based learning models to a teaching model that allows teachers to directly engage in the practices being learned and to connect as closely as possible with the teacher's classroom and students. In stark contrast to passive listening in lectures, active learning provides educators with deeply embedded and highly contextualized professional learning experiences through strategies such as real teaching cases and interactive activities.

Lei Wei (2018, p.43) proposed that active learning is the core engine for the growth of young teachers in higher education. It serves as a link through conscious reflection, transforming intrinsic motivation into practical wisdom, integrating research thinking and exploratory spirit into teaching, shifting from knowledge transmission to deep interaction, and achieving a mutual enhancement in teaching.

McChesney, K. (2021, p.30) proposed and emphasized that the need to recognize teachers as adult learners and professionals, they desire respect and autonomy in their professional development. One-size-fits-all professional development programs that ignore teachers' opinions and lack collaborative mechanisms may achieve little success as teachers actively reject established training programs and accompanying reform intentions.

Liu Xiaohong (2025, p.65) proposed that active learning is the core driving force for teachers' professional growth. Using lesson case teaching as a carrier, teachers autonomously study theories, participate in discussions, and design improvement plans, achieving a leap from knowledge absorption to innovative output. At the same time, teachers actively explore the path of theoretical transformation in practice, refining their teaching wisdom through simulation and rewriting, driving continuous advancement in their profession.

Xie Hongyu (2025, p.12) proposed that active learning is the core engine for teacher growth. It drives teachers to keep pace with the times, pursue lifelong knowledge, and update their knowledge systems; it also empowers professional

autonomous development, prompting teachers to make flexible decisions and dynamically adjust based on student learning conditions, internalizing their professional mission into personalized educational practices.

In conclusion, active learning refers to a professional learning process in which new human resources actively develop professional knowledge, skills, and practice through authentic tasks, research–practice integration, iterative experimentation, and critical reflection. Supported by administrators, it encourages engagement in the Plan–Act–Observe–Reflect cycle, case-based inquiry, adaptive teaching, interdisciplinary collaboration, and immersive professional practice, thereby promoting continuous improvement and sustainable professional development.

Collaboration

Bao Cong (2010, p.87) proposed that collaboration runs through the entire education process. Teachers communicate and assist each other through online platforms, and engage in school-based research for collective advancement; in teaching, there is deep interaction between teachers and students, with students actively participating in practice, teachers providing tailored instruction, and two-way feedback optimizing teaching, achieving knowledge co-construction and capability co-existence, thereby invigorating the vitality of education.

Merchie, E. (2016, p.7) proposed that collective or collaborative participation is achieved through collaboration with internal and external peers. For example, observing each other's practices and providing feedback.

Darling-Hammond (2017, p.10) proposed that when professional development adopts effective collaborative structures that allow teachers to collectively solve problems and learn, it can have a positive impact on students' academic achievement. Among the 35 studies we reviewed, 32 included some form of collaborative element to support teachers' professional learning, while the other 3 studies did not provide sufficient description to determine whether collaboration was part of the model design.

Lei Wei (2018, p.43) proposed that collaboration is key to the growth of teachers and the improvement of teaching quality. By leveraging external resources

such as colleagues and experts, we can expand our practice and refine our research. In teaching, collective lesson planning and discussions allow for mutual learning and assistance in solving problems, helping young teachers to quickly adapt and enhance their teaching effectiveness.

McChesney, K. (2021, p.24) proposed that teachers emphasize the value of professional development conducted through informal collaboration with peers, as they often believe that most of their colleagues possess rich professional knowledge.

Xu Bojun (2023, p.8) proposed that collaboration is the empowering link for educator-type teachers. In practice, working together with peers to research and advance, sharing wisdom to enhance practical skills. In reform, linking multiple parties for collaborative innovation, promoting the updating of concepts and the implementation of policies, and gathering strength to drive high-quality development in education.

Zhang Hui (2025, p.82) proposed that collaboration builds a bridge for educational advancement. Teachers connect with managers, policymakers, and peers to drive innovative ideas. At the same time, teams achieve resource sharing through reflective communication and mutual support in teaching research, which not only promotes individual growth but also enhances overall effectiveness, empowering the optimization of the educational ecosystem.

Liu Xiaohong (2025, p.66) proposed that collaboration reshapes the ecological growth of teachers. The lesson study method brings together diverse stakeholders to build a community of complementary strengths. At the same time, it breaks the isolation effect of individuals, promotes mutual learning through social construction, and achieves the transformation of collective wisdom into individual capabilities through role switching and dialogue.

In conclusion, collaboration refers to a professional learning process in which new human resources enhance their professional competence through knowledge sharing, peer learning, interdisciplinary collaboration, and shared problem-solving. Supported by administrators, it emphasizes establishing knowledge-sharing channels, clarifying team roles, developing a shared vision, strengthening reciprocal

relationships, optimizing collaboration models, and promoting multidimensional interaction to foster collaborative competence and sustainable professional development.

Duration

Desimone, L. M. (2009, p.184) proposed that intellectual and pedagogical change requires sufficient time limits for professional development activities, including both the duration of the activity (e.g., one day or a semester) and the total duration of the activity. Although the study did not specify the exact tipping point of the time limit, it confirmed that activities lasting one semester (or summer high-intensity training combined with intra-semester follow-up) and a program that included more than 20 hours of contact time had significant effects.

Merchie, E. (2016, p.7) proposed that duration is a reinforcement extension project. Although there is no exact critical point, research shows that activities conducted in a dispersed manner are more effective; for example, courses that last the entire semester and include follow-up.

Darling-Hammond (2017, p.15) proposed that continuously providing teachers with multiple learning opportunities around the same set of concepts or practices in professional development can better achieve the transformation of teaching practices and student learning. These programs typically last for several weeks, months, or even an entire school year, requiring teachers to engage in ongoing professional learning to make a substantial impact.

Lei Wei (2018, p.43) proposed that duration reflects the laws governing teacher professional growth. Its development follows a dynamic curve, with each stage building upon and reinforcing the previous one, spanning throughout the entire career, necessitating lifelong learning to update one's knowledge system and breakthrough through setbacks for self-enhancement and professional advancement.

McChesney, K. (2021, p.5) proposed that to enhance the impact of professional development programs, academia has conducted extensive research focusing on significant design elements of professional development, revealing that

professional development has design elements that require a long-term and sustained implementation cycle.

Xu Bojun (2023, p.10) proposed that the duration highlights the growth trajectory and mission of educator-type teachers. Their professional development spans their entire career, requiring long-term accumulation to form teaching propositions. At the same time, leading educational reform is not an overnight success. It involves continuous exploration to promote conceptual innovation and model iteration, embodying the original intention of education.

Zhang Hui (2025, p.82) proposed that the duration reveals the true essence of teacher growth. The spirit of educators drives 'dual-qualified' teachers to refine their professionalism through continuous reflective practice. At the same time, lifelong learning becomes the norm, dynamically updating concepts and skills, injecting lasting momentum into the high-quality development of vocational education, and demonstrating the sustainability of development.

Xie Hongyu (2025, p.13) proposed that the duration outlines the growth trajectory of teachers. Their professional development is both systematic and long-term, requiring lifelong improvement of qualities and abilities. This involves phased breakthroughs and dynamic adjustments to paths according to the environment, achieving sustainable growth in educational life through continuous accumulation.

In conclusion, duration refers to a sustained and structured professional development process in which new human resources continuously enhance their professional competence through long-term planning, staged goals, ongoing participation, and continuous improvement. Supported by administrators, it emphasizes systematic professional development plans, regular monitoring and feedback, adaptive adjustment, sustainable institutional support, and routine professional practice to strengthen self-efficacy and promote sustainable professional growth.

Content focus

Desimone, L. M. (2009, p.184) proposed that the content focus of teacher learning is probably the most impactful feature. A compilation of evidence from case

studies over the past decade points to an association between activities focused on subject content and the way students learn that content and teacher knowledge and skills, teaching practice, and student achievement.

Bao Cong (2010, p.88) proposed that the content focus on higher vocational education adheres to the employment-oriented and integration of work and study philosophy. Teaching closely aligns with actual work, and teachers need to have a comprehensive understanding of the industry and incorporate diverse elements. It emphasizes practice and professionalism, creating a "dual-teacher" faculty to help students grow into high-quality technical application talents.

Merchie, E. (2016, p.6) proposed that the content focus on student learning and is based on evidence related to student learning.

Darling-Hammond (2017, p.5) proposed that content focus has been proven to have a substantial impact on student achievement, with its core being the specific subject matter taught by teachers. Such professional development activities typically revolve around specific subject curricula, such as mathematics, science, or literacy education, and mostly adopt an embedded implementation model—conducting professional development practices directly in the classroom environment where teachers teach, alongside students, rather than through generic external training detached from the school or district context.

McChesney, K. (2021, p.5) proposed that the lack of effectiveness in the content of professional development, suboptimal implementation outcomes, differences across multiple campuses, and flaws in research design may all contribute to the lagging nature of professional development.

Xu Bojun (2023, p.8) proposed that the content center focus on the essence of education and the cultivation of students in various subjects. Educator-type teachers understand the true meaning of life growth and anchor their direction in student development. At the same time, educator-type teachers delve into subject education, using textbooks as a medium to convey the value of knowledge, achieving an organic integration of professional teaching and the mission of nurturing students.

Zhang Hui (2025, p.79) proposed that the content center embodies the spirit of educators and the characteristics of the 'dual-teacher' model. The spirit of educators shapes the soul and nurtures students through six dimensions, guiding teachers in their ideal pursuits. The 'dual-teacher' model integrates theory and practice, highlighting the unity of professionalism, vocation, and teacher training, collectively laying the foundation for high-quality development in vocational education.

In conclusion, content focus refers to a professional development process in which new human resources continuously strengthen their professional knowledge and teaching competence through systematic content organization, continuous content optimization, and the integration of theory with practice. Supported by administrators, it emphasizes coherent content structures, curriculum updating, project-based learning, industry-education integration, and authentic professional practice to promote meaningful learning, distinctive professional development, and sustainable teaching improvement.

Reflection

Bao Cong (2010, p.87) proposed that reflection is the cornerstone of teacher growth. By examining teaching practices with a problem-oriented approach, methods can be continuously improved and quality enhanced; throughout all stages of a career, it summarizes past experiences while also planning future paths, promoting professional development through dynamic adjustments to achieve periodic breakthroughs and lifelong growth.

Darling-Hammond (2017, p.15) proposed that in effective professional development programs, practices that generate feedback and support reflection often include sharing positive and constructive two-way evaluations of real teaching examples, such as lesson plans, demonstration classes, or teaching videos. These activities typically occur during guided discussions or group seminars led by experts, with a few cases showing that peer evaluations among teachers also take place. In various contexts, high-quality professional development programs create a richer

growth environment for teacher learning through feedback mechanisms and opportunities for reflection.

Lei Wei (2018, p.43) proposed that reflection is the key to the growth of college youth teachers. As a central component of professional development, it connects practice with wisdom, assisting instructors in the continuous improvement of their teaching. In the classroom, through self-reflection and attention to feedback, one can refine content and strategies, thus achieving a leap in teaching effectiveness.

Xu Bojun (2023, p.12) proposed that reflection is the key to the growth of educator-type teachers. They analyze teaching processes deeply using theory as a measure, systematically identifying deviations and analyzing gains and losses. At the same time, in practice, educator-type teachers engage in self-examination, gain insights into problems, and seek strategies for improvement, achieving professional advancement and educational quality enhancement through a two-way iterative process.

Zhang Hui (2025, p.83) proposed that reflection is the cornerstone of teachers' professional growth. By analyzing teaching practices to identify problems and distill experiences, we deepen our understanding of the spirit of educators. At the same time, relying on daily records, group discussions, and other diverse pathways, we achieve progress both individually and as a team, promoting the transformation of educational concepts into practice.

Liu Xiaohong (2025, p.65) proposed that reflective practice drives the professional development of teachers. Lesson teaching anchors problem improvement through critical reflection, promoting the internalization of theory. At the same time, through the cycle of 'practice-reflection-optimization-repractice', strategies are iterated, wisdom is accumulated, and a spiraling growth path is constructed, achieving a continuous leap in teaching ability.

Xie Hongyu (2025, p.13) proposed that reflection is the cornerstone and engine of teacher growth. It drives teachers to delve into educational values and update their concepts and techniques. At the same time, it serves as a mirror through which teachers can examine their teaching behaviors and outcomes to

identify problems, iterate strategies, and achieve professional advancement and improved educational effectiveness in a spiral progression.

In conclusion, reflection refers to a professional development process in which new human resources continuously improve their professional practice through critical analysis, evidence-based inquiry, and continuous adjustment. Supported by administrators, it emphasizes targeted reflection, feedback analysis, peer feedback, evidence collection, case analysis, critical reasoning, and iterative experimentation within a Practice–Reflection–Adjustment cycle to strengthen professional judgment, improve teaching practice, and promote sustainable professional development.

Context of Border Universities in Guangxi

Yang Lei. (2008, p.88) proposed that the border universities refer to a university with outstanding frontier, ethnic, and biological diversity that is located in the border area, adheres to the direction of providing talent support and scientific and technological support for local economic and social development, and plays a leading role in ideology, management mode, operation mode, and spiritual civilization.

Dong Rongrong (2024, p.1) proposed that as the main body of special education opening up in border areas, Border Universities bears the important responsibility of good-neighborliness, peace and prosperity externally, and the special mission of prospering the border and stabilizing the border internally, which is an important support for extending the public diplomacy of the surrounding areas and enhancing the influence of national education, and plays an irreplaceable and important role in promoting educational exchanges, cultural integration and people-to-people bonds.

Tian Yuhai (2025, p.20) proposed that border education is based on the border ethnic areas and radiates the cultural activities of cross-border ethnic groups in border countries. Relying on border schools and media technology, it aims to build a national culture, forge a strong sense of community of the Chinese nation, improve

the cultural and aesthetic literacy of border people, resolve border social problems, and promote people-to-people ties in countries along the Belt and Road, to serve the national strategy of opening up along the border. Its cultural governance attributes are embodied in: internally, it helps to forge the sense of community of the Chinese nation and maintain the harmony and stability of border ethnic areas; Externally, it can promote the building of a community with a shared future for mankind, promote people-to-people ties among neighboring countries, and promote the high-quality development of the Belt and Road Initiative. The development of border education has become an important measure for China to promote the modernization of national governance.

In conclusion, the border universities of Guangxi refer to higher education institutions located along the China–Vietnam border in Guangxi Province. In this study, they include Baise University, Youjiang Medical University for Nationalities, and Guangxi Normal University for Nationalities. These universities are characterized by their responsibility to support regional development through talent cultivation, applied research, and educational services. These institutions prioritize regional service—supplying talent, technical support, and applied research—while advancing cross-border educational and cultural exchange, stability, and good-neighbour relations. They bridge local development and national border-opening strategies, fostering social cohesion, intercultural understanding, and capacity-building for border-area governance and prosperity. They are an important force in enhancing the national influence of education and serving the border-area opening-up strategy. The geographical locations of these three universities on the Guangxi border are shown in Figure 2.1(Google Maps, 2025).



Figure 2.1 Map of the border Universities in Guangxi

Source: Google Maps, 2025

Guangxi Normal University for Nationalities is located in Chongzuo City, Guangxi Zhuang Autonomous Region, on the border of China and Vietnam, which is the most convenient land passage from China to Vietnam and an important node city of the southbound passage of the "Belt and Road". The university has a highly qualified and highly qualified teaching team. The total number of faculty members is 1,194, including 81 professors, 87 doctoral students, and 97 postdoctoral students. The school vigorously implements the strategy of strengthening the school with talent, optimizes the talent introduction and education mechanism, and attracts high-level talent to join.

Positioning of the school's operation. Characterized by "serving the frontier and cultivating ethnic talents", it is a local application-oriented university, which has significant advantages in the field of teacher education and ethnic disciplines, and

has long undertaken the task of providing basic education teachers and ethnic cadres for Guangxi and its surrounding areas.

School Vision. Based on Chongzuo, serving Guangxi, facing the whole country, radiating ASEAN, and towards the goal of building "Guangxi Normal University for Nationalities", we will strive to build the university into a high-level applied university with normal, ethnic and frontier characteristics rooted in southern Xinjiang, dedicated to the old revolutionary base area, committed to teacher education, developing non-teacher education, serving ethnic areas, and serving ethnic areas.

Baise University is located in Baise City, Guangxi Zhuang Autonomous Region, close to the Sino-Vietnamese border, and is an important city at the Sino-Vietnamese border port. There are 1,460 full-time faculty members in Baise University, including 1,080 full-time teachers. In this teaching team, 326 teachers with senior professional titles have been deeply engaged in their respective disciplines for many years and have profound academic attainments and rich teaching experience. There are 289 teachers with doctoral degrees, 4 doctoral supervisors, and 44 master's supervisors. These teachers are not only conscientious in teaching but also actively engaged in scientific research, undertaking many national, provincial, and ministerial scientific research projects, and achieving a series of fruitful scientific research results, providing valuable opportunities for students to participate in scientific research practice.

Positioning of the school. With the purpose of serving the economic and social development of border areas, it focuses on the development of disciplines related to border economy, ethnology, agriculture, and forestry economic management, and is committed to cultivating professionals who serve border trade and ethnic unity.

School Vision. It is committed to becoming an important base for education, culture, science, and technology in the border areas, promoting the development of education and ethnic unity in the border areas, and contributing to the stability and prosperity of the China-Vietnam border areas.

Youjiang Medical University for Nationalities is located in Baise City, Guangxi Zhuang Autonomous Region, close to the Sino-Vietnamese border, and is an

important city in the border area of Guangxi, Yunnan, and Guizhou provinces. There are 934 full-time teachers in the university, including 481 with senior professional and technical positions. In recent years, the school has deeply implemented the talent project, selected nearly 200 outstanding teachers to study abroad for doctoral and advanced studies, and selected 33 outstanding teachers to study abroad through the application for autonomous region-level and national-level education fund projects. At present, the school has 5 experts enjoying the special government allowance of the State Council, 8 national outstanding teachers and educators, 2 Guangxi distinguished experts, 1 outstanding expert of the autonomous region, 2 second-level candidates of Guangxi's "New Century Ten Hundred Thousand Talents Project", 1 Guangxi D talent, 1 leading talent of Guangxi Medical Talent Training Program, and 2 outstanding scholars of Guangxi universities.

Positioning of the school's operation. Focusing on medical education, it focuses on serving the medical and health undertakings in the border areas and is committed to cultivating medical talents serving the border areas.

School Vision. It has become a modern medical college with great influence in the border areas of Guangxi, Yunnan, and Guizhou provinces and the border areas between China and Vietnam, and it provides strong support for the medical and health undertakings in the border areas.

Related Research

Huang, C. (2023, p.3) proposed that based on human resource management theory, this study employs research methods such as questionnaires and interviews to analyze the current situation and causes of human resource management in universities in Guangxi. Using statistical analysis techniques, it proposes improvement strategies for human resource management in Guangxi universities and evaluates the feasibility of the proposed strategies. The objectives of this research were 1) to study the level of human resource management in Guangxi universities, 2) to develop strategies for improving human resource management in Guangxi universities, and 3)

to evaluate the suitability and feasibility of the strategies for improving human resource management in Guangxi universities.

Lin, L. (2023, p.5-6) proposed that to meet the needs of higher education reform and development in the new era and to enhance the level of human resource management in the libraries of Guangxi universities, she selected librarians from 10 public universities in Guangxi as the research sample, based on extensive literature reviews and theoretical research. SPSS software is intended to be used to conduct descriptive statistical analysis and difference analysis on the questionnaire data, to gain an in-depth understanding of the current state of human resource management in Guangxi university libraries and the causes influencing its effectiveness. Ultimately, based on the statistical analysis results and the research model, this study will propose targeted strategies to improve the efficiency of human resource management in Guangxi universities' libraries and assess their effectiveness and feasibility, providing a practical reference for human resource management in Guangxi universities' libraries. The research aims include three points: 1) To study the current status of human resource management in Guangxi university libraries. 2) To formulate guidelines for human resource management in Guangxi universities' libraries. 3) To evaluate the suitability and feasibility of the guidelines for improving human resource management in Guangxi universities' libraries.

Deng, X. (2023, p.5-6) proposed that this study aims to develop a decision-making model for human resource management in Chinese universities in the Sichuan region to enhance management practices. The research objectives are threefold: 1) to study the current situation and countermeasures of human resource management systems in Chinese universities; 2) to establish a human resource management decision-making model for universities in Sichuan Province; and 3) to evaluate the human resource management decision-making model. To achieve the first objective, the literature review method and expert survey method were adopted. Based on the results of the literature review, an expert questionnaire was designed and confirmed by five experts before implementation, after which it was distributed to 21 experts to verify the literature review findings. For the second

objective, a graphical model was developed based on feedback from the 21 experts. To accomplish the third objective, nine experts evaluated the designed human resource management decision support system model according to the CIPP evaluation principles.

Liu, Q. (2024, p.3) proposed that building an incentive mechanism is crucial for promoting the sustainable professional development of young teachers in higher vocational colleges. This study focuses on the current status of the incentive mechanism for young teachers in higher vocational colleges in Hunan Province, constructs a sustainable professional development model, and evaluates its applicability and feasibility. Using a mixed research method that includes questionnaires, interviews, focus group discussions, and evaluation forms, the study surveyed 276 young teachers from three colleges. Data were deeply explored through a combination of qualitative analysis and quantitative research. The study has three objectives: 1) To investigate the current status of the incentive mechanism for young teachers in higher vocational colleges in Hunan Province. 2) To formulate an incentive mechanism for young teachers in these colleges to promote their sustainable professional development. 3) To evaluate the appropriateness and feasibility of the sustainable professional development incentive mechanism for young teachers in higher vocational colleges in Hunan.

Lyu, J. (2022, p.5) proposed that the guiding principles for building high-caliber talent teams in Guangxi universities are a key component of universities' human resource management. These guiding principles cover the following four dimensions: 1) family factors; 2) educational background; 3) social environment; and 4) personal traits. The research sample consisted of 200 high-caliber talents from 20 key universities in Guangxi, with the sample size determined according to Morgan's law. Three research tools were used: questionnaires, interview records, and evaluation forms. Statistical analysis of the data adopted indicators such as percentage, mean, and standard deviation. The study has three main objectives: 1) to examine the current situation of high-caliber talents in Guangxi universities; 2) to formulate guiding

principles for the development of high-caliber talents in Guangxi universities; and 3) to assess the adaptability and feasibility of these guiding principles.

Wang, C. (2023, p.4) proposed that enhancing the professional competence of grassroots management personnel is an important guarantee for improving the management level of universities. The questionnaire survey targeted 600 first-level management personnel from six universities in Guangxi. The interview group consisted of 20 middle-level managers and teachers, and the strategy evaluation expert team was composed of six experts from six universities in Guangxi. The study adopted three research tools: questionnaire survey, structured interviews, and evaluation forms. Data analysis methods included percentages, means, standard deviation, and content analysis. The research aims were threefold: 1) to examine the current status of the professional development of first-level management personnel in Guangxi universities; 2) to formulate professional development strategies for first-level management personnel in Guangxi universities; 3) to evaluate the adaptability and feasibility of these professional development strategies.

Huang, L. (2024, p.4) proposed that this study aims to provide support for the professional development of three types of high-quality vocational teachers in the new era by formulating teaching strategies that meet the actual needs of schools, promoting the improvement of teachers' professional competence, and ultimately forming a practical and effective support system. The study seeks to achieve three main objectives: 1) to explore the implementation conditions, challenges, and influencing factors of professional development strategies for high-quality vocational teachers in the new era; 2) to formulate strategic plans for the professional development of such teachers; 3) to evaluate the applicability of the strategic plan in regional studies. The research sample was selected through random cluster sampling and included 381 teachers from higher vocational colleges in Guangdong Province who participated in a questionnaire survey, plus 10 teachers who took part in interviews. Research tools included questionnaires, interview records, and evaluation forms. Data were analyzed using mean, standard deviation, and paired-sample t-tests.

Wu Daping & Huang Juan (2024, p.76) proposed that in the context of digital transformation, universities should improve their management concepts, optimize work processes, and continuously update and refine their incentive mechanisms through the effective application of digital technology strategies to create a more open, flexible, and efficient human resource management system that better meets the needs of educational development. Universities in Guangxi can adopt strategies such as innovatively designing diversified and personalized incentive mechanisms, building a comprehensive digital incentive platform, and paying attention to feedback on incentive strategies, to improve the working environment for faculty and staff, attract and retain outstanding talent, stimulate innovative thinking and work enthusiasm, and enhance the quality and level of school management.

Chen, Y. (2022, p.51) proposed that at present, local universities' libraries have relatively lagging human resource management levels and lack subject service talents, making them inadequate in supporting universities' "first-class discipline" construction, and urgently needing attention and support from the academic community. Based on the background of Guangxi's "first-class discipline" construction, this project studies the current situation of human resource management in university libraries and proposes corresponding solutions. Firstly, through field investigation and interviews, an in-depth study was conducted on the staff structure, organizational structure, training and development, incentive mechanisms, and subject service teams of university libraries, analyzing the shortcomings in human resource management in supporting university discipline construction. Secondly, through questionnaires, the current situation of human resources and subject service teams in libraries of other universities in Guangxi engaged in "first-class discipline" construction was examined. On the basis of horizontal comparison among university libraries, real cases and factual data were used to elaborate on the necessity and importance of optimized human resource management for deep-level subject knowledge service support under the background of "first-class discipline" construction. Finally, optimization strategies were proposed in five aspects: striving for talent introduction policies, ensuring

proper staffing of subject librarians, improving training systems, establishing incentive systems, and perfecting subject service mechanisms and evaluation mechanisms.

Niu Guiping (2025, p.62) proposed that the purpose of this study is to explore the incentive mechanisms in human resource management in universities, analyze their significance for university development, evaluate the current implementation status of such mechanisms, and propose strategies for building effective incentive systems. Through a literature review and theoretical analysis, the research systematically examines the definition of human resource management in universities, the value of incentive mechanisms, their current status, and innovative strategies. The findings indicate that current universities' incentive mechanisms face issues such as insufficiently scientific reward systems, unmet faculty development needs, and imperfect evaluation systems. In response, innovative strategies are proposed, including improving the reward system, addressing faculty development needs, and optimizing the evaluation system, with the aim of providing references for universities to enhance educational quality and competitiveness.

Miao Yongli (2025, p.181) proposed that the purpose of this study is to explore innovative and reform-oriented approaches to human resource management in universities within the context of informatization, in order to meet the developmental needs of higher education in the digital era. Using theoretical analysis and case study methods, the research systematically examines the bidirectional impact of informatization on universities' human resource management, including positive effects such as improved management efficiency and optimized resource allocation, as well as negative issues like data security risks and excessive technological dependence. The results propose innovative pathways from three dimensions: management philosophy, models, and methods such as creating a 'Human Resource Strategy Map,' implementing a management system of 'platform-based integration + grid-based empowerment,' and leveraging big data and artificial intelligence technologies for precision management. In addition, the study suggests implementation strategies including improving information infrastructure,

strengthening the development and integration of information systems, establishing sound management systems, and enhancing organizational and personnel support.

The above is a relevant study of the professional development enhancement model for new human resources in universities.

Chapter 3

Research Methodology

The present study examines a professional development enhancement model for new human resources. Specifically, the study aims to assess the current state of their professional development and to develop and evaluate a model for enhancing professional development among new human resources in these institutions. The research methodology was organized into the following four components:

1. The Population / Sample group
2. Research Instruments
3. Data Collection
4. Data Analysis.

Phase 1: Study the current level of professional development of new human resources.

The Population / Sample Group

The Population

The population was 461 new human resources from 3 border universities in Guangxi Province in China and Vietnam. The inclusion criteria for the target population were defined as follows: (1) being employed as a university teacher; (2) holding a master's degree or higher qualification; and (3) having no more than three years of employment experience.

The Sample Group

Based on the sample size guidelines proposed by Krejcie and Morgan (1970), a total of 210 new human resources were selected through a combination of stratified and simple random sampling techniques. Table 1.1 presents the three

participating border universities situated in the Guangxi Zhuang Autonomous Region along the China–Vietnam border.

Research Instruments

Questionnaire

The instrument used to collect data for objective one, to study the current situation of professional development of new human resources, was a questionnaire. The questionnaire was designed based on professional development in five aspects. The questionnaire consisted of two main sections:

Part 1: Collection of respondents' demographic information, including gender and educational attainment.

Part 2: Examination of the existing level of professional development among new human resources. Responses were interpreted according to the criteria established for the five-point Likert scale (1932), as presented below:

- 5 indicates the highest level of professional development.
- 4 indicates a high level of professional development.
- 3 indicates a moderate level of professional development.
- 2 indicates a low level of professional development.
- 1 indicates the lowest level of professional development.

Mean scores were interpreted according to the five-point Likert scale (1932) developed, with the corresponding interpretation criteria presented below:

- 4.50 – 5.00 indicates the highest level
- 3.50 – 4.49 indicates high level
- 2.50 – 3.49 indicates medium level
- 1.50 – 2.49 indicates low level
- 1.00 – 1.49 indicates the lowest level

Constructing a questionnaire process

Step 1: Conducting a systematic review of relevant literature, conceptual perspectives, theoretical frameworks, and prior studies concerning the professional development of new human resources.

Step 2: Design and administer a questionnaire to evaluate the existing level of professional development based on five dimensions. The questionnaire outline was subsequently submitted to the thesis advisors for examination, and the content was revised in accordance with their recommendations.

Step 3: The content validity of the questionnaire was evaluated by five experts using the Index of Objective Congruence (IOC), yielding an overall IOC coefficient of 0.988, indicating satisfactory content validity.

Step 4: Following expert feedback, the questionnaire underwent further refinement.

Step 5: The questionnaire was distributed to 30 new human resources for a try-out. The questionnaire demonstrated strong internal consistency, as indicated by a Cronbach's alpha coefficient of 0.965. This result confirms the high reliability of the instrument. The suitability of the dataset for factor analysis was examined using the KMO measure and Bartlett's test of sphericity. The KMO statistic reached 0.947, exceeding the recommended threshold of 0.80, thereby demonstrating a high level of sampling adequacy for factor extraction.

Step 6: The finalized questionnaire was administered to a sample of 210 new human resources.

Data Collection

Data collection for Objective 1 was conducted to examine the existing level of professional development, as follows:

Step 1: The researcher obtained an official request letter from Bansomdejchaopraya Rajabhat University to facilitate data collection from 210 newly recruited human resources.

Step 2: A total of 210 new human resources participated in the questionnaire survey through the online Wenjuanxing platform, and all 210 questionnaires were completed and collected.

Data Analysis

For data analysis, the researcher processed the collected data using statistical software, as described below:

Step 1: Respondents' demographic characteristics were summarized using frequencies and percentages, with the analysis categorized according to gender and educational attainment.

Step 2: The questionnaire data collected through Wenjuanxing were analyzed using the online SPSSAU platform. The five dimensions of professional development among new human resources were evaluated using descriptive statistics, specifically the mean and standard deviation.

Phase 2: Formulate the professional development enhancement model for new human resources.

Key informations

The interviewees

The study involved 12 senior administrators from teacher development centers at border universities in Guangxi as interviewees. The eligibility criteria for participation included: (1) holding a division-level leadership position; (2) having a minimum of six years of experience in senior administrative roles at teacher development centers in border universities; (3) possessing a certificate or qualification related to professional development; and (4) holding a master's degree or higher.

Research Instruments

Structured Interviews

For Objective 2, the data collection process was designed to support the development of a professional development enhancement model. The structured interview protocol was developed with reference to the current state of professional development, with particular attention to the following five dimensions. The structured interview protocol comprises two main sections:

Part 1: the personal information of interviewees, classified by interviewees, interviewers, educational background, work experience, interview time, and interview date.

Part 2: the questions about suggestions for developing the current situation of professional development based on five aspects for new human resources.

Constructing a structured interview process

The structured interview protocol was developed through the following procedures:

Step 1: Conducting a systematic review of relevant literature, conceptual perspectives, theoretical frameworks, and prior studies concerning the professional development. Based on the item with the lowest mean score among the ten items for each variable, recommendations were developed to address the identified issues and determine appropriate approaches for administrators to improve them.

Step 2: Construct a structured interview about suggestions for developing the current situation of professional development based on five aspects. The structured interview outline was subsequently submitted to the thesis advisors for review, and its content was refined in accordance with their recommendations.

Data Collection

The data collection for objective 2: to formulate a professional development enhancement model for new human resources as follows:

Step 1: Obtaining an official requirement letter. An official request letter was obtained from Bansomdejchaopraya Rajabhat University to facilitate the subsequent data collection. The letter stated the purpose of the research and requested permission to interview high-level administrators responsible. The letter was used to facilitate formal communication with the participating universities and to establish the legitimacy of the data collection process.

Step 2: Contacting and selecting interviewees. After obtaining the requirement letter, the researcher contacted the relevant teacher development centers or administrative units of the three selected border universities. The purpose, scope,

procedures, and expected duration of the interview were explained to the relevant administrators. One high-level administrator with direct responsibility for teacher development or faculty development was invited with two interview participants selected from each university, yielding six participants in total. The interviewees were selected based on their administrative responsibilities and practical experience in teacher professional development, particularly in the planning, implementation, management, and evaluation of professional development activities for new human resources.

Step 3: Arranging the interview schedule. The researcher communicated with each interviewee to determine a suitable date, time, and interview format. Interviews were conducted either face-to-face or through an online communication platform according to the interviewee's availability, institutional arrangements, and geographical circumstances. Before each interview, the researcher provided the interviewee with information about the research purpose, interview topics, estimated duration, and procedures for using the collected information.

Step 4: Preparing the structured interview instrument. Before conducting the interviews, the researcher prepared a structured interview protocol based on the findings from Objective 1, relevant literature on professional development, and the five dimensions examined in the questionnaire. The interview questions were designed to identify the main problems, institutional practices, administrative support mechanisms, and feasible strategies for enhancing professional development. The questions were organized systematically to ensure that all interviewees were asked comparable questions and that the information collected could be subsequently compared and synthesized.

Step 5: Conducting the structured interviews. The researcher conducted the interviews individually with the selected high-level administrators. Each interview followed the predetermined structured interview protocol and focused on the five dimensions of professional development. The researcher asked the same core questions to each participant to ensure consistency across interviews while allowing participants to provide explanations, examples, and recommendations based on their

professional experience. Particular attention was given to identifying feasible administrative strategies and institutional mechanisms that could be incorporated into the professional development enhancement model.

Step 6: Recording and documenting interview data. During each interview, the researcher carefully recorded the information provided by the interviewee and took supplementary notes regarding important statements, examples, recommendations, and emerging themes. Where permission was obtained, the interviews were audio-recorded to ensure the accuracy and completeness of the interview data. For online interviews, the researcher used the agreed online communication platform to conduct and document the interview. The recordings and notes were subsequently organized according to the five dimensions of professional development.

Step 7: Organizing and verifying the collected data. After completing each interview, the researcher reviewed the interview notes and recordings and organized the collected information systematically. Relevant responses were transcribed and classified according to the five dimensions. The researcher checked the interview records for completeness and accuracy and clarified any unclear information with the respective interviewee when necessary. This process helped ensure that the interview data accurately represented the participants' perspectives and recommendations.

Step 8: Preparing the data for analysis and model development. Finally, the organized interview data were prepared for qualitative content analysis. The researcher identified recurring ideas, recommendations, administrative practices, institutional support mechanisms, and potential strategies related to the five dimensions of professional development. The findings from the structured interviews were then integrated with the results of objective 1 and relevant literature to identify appropriate strategies and mechanisms for formulating the professional development enhancement model.

Data Analysis

Responses obtained from the structured interviews concerning the professional development enhancement model were examined using content analysis.

Phase 3: Evaluate the suitability and feasibility of the professional development enhancement model for new human resources.

Key informations

Expert group

The model was assessed for its suitability and feasibility by a panel of nine experts drawn from border universities. The expert inclusion criteria were established as follows: (1) having at least 10 years of experience in senior administrative positions at teacher development centers in border universities; (2) holding a professional development-related qualification or certificate; and (3) possessing a doctoral degree or higher.

Research Instruments

Evaluation form

For Objective 3, the data collection instrument was intended to assess the proposed model for enhancing the professional development of new human resources. Accordingly, an evaluation form was developed with reference to the proposed professional development enhancement model and organized around the following five dimensions. The evaluation form comprises two main sections:

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

Part 2: The evaluation form about the model for improving professional development. The data were interpreted according to the following criteria using a five-point Likert scale:

5 indicates the suitability and feasibility of the model at the highest level

4 indicates the suitability and feasibility of the model at a high level

3 indicates the suitability and feasibility of the model at a medium level

2 indicates the suitability and feasibility of the model at a low level

1 indicates the suitability and feasibility of the model at the lowest level

The mean scores were interpreted in accordance with the five-point scale originally proposed by Rensis Likert (1932), using the following criteria:

4.50 – 5.00 refers to the highest level

3.50 – 4.49 refers to high level

2.50 – 3.49 refers to medium level

1.50 – 2.49 refers to low level

1.00 – 1.49 refers to the lowest level

Constructing an evaluation form process

The construction process of the evaluation form is as follows:

Step 1: Construct the evaluation form about the professional development enhancement model.

Step 2: The evaluation form was applied to 9 high-level administrators in border universities in Guangxi.

Data Collection

The data collection for objective 3: to evaluate the professional development enhancement model was as follows:

Step 1: Obtaining an official requirement letter. An official request letter was obtained from Bansomdejchaopraya Rajabhat University to facilitate the expert evaluation procedure. The letter stated the purpose of the study and formally requested the participation of qualified experts in evaluating the proposed professional development enhancement model.

Step 2: Identifying and selecting qualified experts. After obtaining the request letter, the researcher contacted the relevant universities and administrative units in Guangxi border universities to identify qualified experts. A total of nine experts were

selected to participate in the evaluation. The experts were high-level administrators or senior personnel from border universities in Guangxi who possessed relevant knowledge and practical experience in teacher development, professional development management, higher education administration, or related areas.

Step 3: Providing information about the proposed model. Before administering the evaluation form, the researcher provided the selected experts with the proposed Professional Development Enhancement Model and relevant explanatory materials. The materials introduced the background and purpose of the model, its conceptual basis, the overall structure, the five dimensions, and the proposed strategies under each dimension. The experts were given sufficient information to understand the structure, purpose, and intended application of the model before completing the evaluation.

Step 4: Developing the evaluation form. The evaluation form was developed specifically for objective 3 based on the proposed model. The evaluation items were aligned with the five dimensions of the model and were designed to assess the extent to which the proposed model was suitable and feasible.

Step 5: Distributing the evaluation forms. After the evaluation form had been prepared, the researcher contacted the nine selected experts and explained the purpose and procedures of the evaluation. The evaluation forms were then distributed to the experts through appropriate channels according to their convenience, including electronic or other agreed methods of delivery. Each expert was asked to carefully review the proposed model and evaluate each item based on their professional knowledge, administrative experience, and understanding of the needs.

Step 6: Conducting the expert evaluation. The experts independently reviewed and evaluated the proposed model. They were asked to consider the appropriateness of the model's dimensions, strategies, structure, and proposed implementation mechanisms. Particular attention was given to whether the model was suitable.

Step 7: Collecting and checking the completed evaluation forms. After the experts completed the evaluation, the researcher collected all nine evaluation forms. The researcher checked each returned form for completeness and consistency before entering the data for analysis. Any incomplete or unclear responses were identified and verified when necessary. A total of nine completed evaluation forms were obtained, representing a 100% response rate among the selected experts.

Step 8: Coding and preparing the evaluation data. The responses obtained from the nine evaluation forms were coded according to the predetermined five-point Likert scale. The data were organized according to the five dimensions of the proposed model. The coded data were then entered into the statistical analysis program for further analysis.

Step 9: Analyzing the evaluation data. The evaluation data were analyzed using mean and standard deviation. The analysis was conducted for the overall model as well as for the five individual dimensions.

Step 10: Interpreting the evaluation results. The mean and standard deviation results were interpreted according to the predetermined criteria for the five-point Likert scale. Higher mean scores indicated a higher level of perceived suitability and feasibility of the model. The results were examined to determine whether the model was considered appropriate for addressing the professional development needs of new human resources and practical for implementation in Guangxi border universities.

Step 11: Revising and finalizing the model. Based on the results of the expert evaluation, the researcher reviewed the strengths and limitations of the proposed model. Where necessary, relevant components, strategies, wording, or implementation procedures were refined.

Data Analysis

For the data analysis, the collected responses were processed using statistical software. The suitability and feasibility of the proposed professional development enhancement model were assessed using the mean and standard deviation.

Chapter 4

Results of Analysis

This research aimed to study a professional development enhancement model for new human resources. The data analysis results could be presented as follows:

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

The details were as follows:

Symbols and Abbreviations

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

Presentation of Data Analysis

Part 1: The analysis results of the respondents' demographic information by gender, working experience, and professional title. The data were summarized using frequencies and percentages.

Part 2: The findings on the professional development level of new human resources are summarized using the mean and standard deviation.

Part 3: The findings derived from the interview data concerning the professional development enhancement model.

Part 4: The findings regarding the suitability and feasibility of the professional development enhancement model for new human resources are reported using the mean and standard deviation.

Results of Data Analysis

Part 1: The analysis results of the respondents' demographic information by gender, working experience, and professional title. The data were summarized using frequencies and percentages.

Table 4.1 Number of people and percentage of respondents

(n = 210)

Personal Information		Frequency	Percentage
Gender	Male	78	37.14
	Female	132	62.86
	Total	210	100
Working experience	1-5 years	169	80.48
	6-10 years	17	8.10
	11-15 years	16	7.62
	More than 15 years	8	3.81
	Total	210	100
Professional title	Associate Professor or above	5	2.38
	Lecturer	26	12.38
	Teaching Assistant	179	85.24
	Total	210	100

According to Table 4.1, showed that the majority of respondents were 132 females, accounting for 62.86%, and 78 males, accounting for 37.14%. The working experience of respondents was mainly 1-5 years for 169 people, accounting for 80.48%, followed by 6-10 years for 17 people, accounting for 8.10%, followed by 11-15 years for 16 people, accounting for 7.62%, and more than 15 years was the lowest level for 8 people, accounting for 3.81%. The majority of respondents were mainly teaching assistants for 179 people, accounting for 85.24%, followed by lecturers for 26 people, accounting for 12.38%, and associate professor or above was the lowest level for 5 people, accounting for 2.38%.

Part 2: The findings on the professional development level of new human resources are summarized using the mean and standard deviation.

Table 4.2 Descriptive statistics summarizing the five dimensions of professional development among new human resources.

(n = 210)

NO	Professional development of new human resources	$\bar{X}$	S.D.	level	Order
1	Active learning	3.78	1.07	high	2
2	Collaboration	3.59	1.11	high	3
3	Duration	3.47	1.05	medium	4
4	Content focus	3.82	1.07	high	1
5	Reflection	3.45	1.24	medium	5
Total		3.62	1.11	high	

As shown in Table 4.2, the overall level of professional development among new human resources was rated as high across the five dimensions ($\bar{X}=3.62$). Based on the findings, the five dimensions were ranked in descending order of their mean scores. Content focus received the highest mean score ($\bar{X}=3.82$), followed by active learning ($\bar{X}=3.78$), whereas reflection recorded the lowest mean score ($\bar{X}=3.45$). The relatively high scores for content focus and active learning indicate that new human resources have relatively strong access to structured professional content and opportunities for active professional learning. However, the comparatively lower score for Reflection suggests that reflective practice remains a relatively weak area and may require greater institutional support, particularly in evidence-based analysis, critical reflection, and continuous improvement. Overall, the findings indicate that although professional development is generally well established, greater attention should be given to strengthening reflective mechanisms to achieve more balanced and sustainable professional growth.

Table 4.3 Descriptive statistics for the active learning dimension of professional development among new human resources

(n = 210)

NO	Active learning	$\bar{X}$	S.D.	level	Order
1	Administrators develop and implement task-driven adaptive professional development interventions for new human resources.	3.79	1.05	high	4
2	Administrators develop a "research-practice" mechanism for new human resources to actively improve their ability of educational.	3.87	1.13	high	1
3	Administrators motivate new human resources to proactively actively in the 'Plan-Act-Observe-Reflect' cycle.	3.68	1.06	high	10
4	Administrators organize new human resources to write educational logs or cases, and actively engage in case studies.	3.76	1.07	high	7
5	Administrators guide new human resources to actively adjust their educational strategies.	3.74	1.03	high	8
6	Administrators guide new human resources to attribute typical events to reasoning and actively form intervention strategies.	3.79	1.08	high	4
7	Administrators motivate new human resources to actively participate in interdisciplinary educational activities.	3.86	1.02	high	2
8	Administrators motivate new human resources to actively carry out iterative experiments on teaching methods.	3.81	1.12	high	3

Table 4.3 (Continued)

(n = 210)

NO	Active learning	$\bar{X}$	S.D.	level	Order
9	Administrators motivate new human resources to actively engage in immersive professional practice.	3.71	1.05	high	9
10	Administrators guide new human resources to actively inspire new academic thinking and research ideas in practice.	3.77	1.09	high	6
Total		3.78	1.07	high	

As indicated in Table 4.3, active learning in the professional development of new human resources was rated at a high level ($\bar{X}=3.78$). Based on the findings, the relevant items were arranged in descending order according to their mean scores, as follows: the highest mean was “Administrators develop a 'research-practice' mechanism for new human resources to actively improve their ability of educational ($\bar{X}=3.87$)”, followed by “Administrators motivate new human resources to actively participate in interdisciplinary educational activities ($\bar{X}=3.86$)”. The lowest mean was “Administrators motivate new human resources to proactively actively in the 'Plan–Act–Observe–Reflect' cycle ($\bar{X}=3.68$)”. These findings indicate that administrators have placed greater emphasis on research–practice integration and interdisciplinary learning, providing new human resources with opportunities to enhance their professional competence through practical and collaborative activities.

Table 4.4 Descriptive statistics for the collaboration dimension of professional development among new human resources

(n=210)

NO	Collaboration	$\bar{X}$	S.D.	level	Order
1	Administrators establish and regularly maintain team knowledge-sharing channels.	3.63	1.10	high	3
2	Administrators help new human resources achieve interdisciplinary or cross-departmental collaboration.	3.66	1.08	high	2
3	Administrators clearly define the team roles for new human resources, promoting member collaboration and development.	3.47	1.06	medium	9
4	Administrators organize new human resources to flexibly adjust cooperation models and dynamically optimize team collaboration relationships.	3.63	1.13	high	3
5	Administrators guide new human resources to establish a cooperative awareness based on the principle of reciprocity.	3.62	1.10	high	7
6	Administrators encourage new human resources to engage in peer learning and share their experiences.	3.63	1.12	high	3
7	Administrators guide new human resources to spark new ideas in team discussions.	3.63	1.15	high	3
8	Administrators guide new human resources to clarify the operability of the collaborative vision.	3.60	1.10	high	8
9	Administrators adjust the team collaboration model for new human resources to strengthen team collaboration skills.	3.34	1.14	medium	10

Table 4.4 (Continued)

(n=210)					
NO	Collaboration	$\bar{X}$	S.D.	level	Order
10	Administrators guide new human resources to experience the multi-dimensional interactive value.	3.70	1.11	high	1
Total		3.59	1.11	high	

Table 4.4 indicates that collaboration within the professional development of new human resources was rated at a high level ($\bar{X}=3.59$). Based on the findings, the relevant items were ranked from the highest to the lowest mean score as follows: the highest mean was “Administrators guide new human resources to experience the multi-dimensional interactive value ($\bar{X}=3.70$)”, followed by “Administrators help new human resources achieve interdisciplinary or cross-departmental collaboration ($\bar{X}=3.66$)”, “Administrators adjust the team collaboration model for new human resources to strengthen team collaboration skills” was the lowest mean ($\bar{X}=3.34$). These findings suggest that administrators have provided relatively strong support for multidimensional interaction and interdisciplinary collaboration, enabling new human resources to broaden professional communication and collaborative experiences. However, the lower mean for adjusting team collaboration models indicates that existing collaboration may rely more on established arrangements than on flexible and adaptive team structures.

Table 4.5 Descriptive statistics for the duration dimension of professional development among new human resources

(n = 210)

NO	Duration	$\bar{X}$	S.D.	level	Order
1	Administrators develop systematic and sustainable professional development plans for new human resources.	3.57	1.04	high	1
2	Administrators clearly define the sustainability of the various stages of professional development goals for new human resources.	3.48	1.05	medium	4
3	Administrators regularly check the progress of new human resources' professional development and build feedback mechanisms.	3.54	1.08	high	2
4	Administrators continuously and routinely adjust the professional development activities for new human resources.	3.39	1.07	medium	9
5	Administrators motivate new human resources to continuously participate in professional activities and constantly update their knowledge system.	3.45	1.10	medium	6
6	Administrators motivate new human resources to continuously improve and provide feedback and suggestions.	3.37	1.01	medium	10
7	Administrators motivate new human resources to transform innovative strategies into routine practices.	3.40	0.98	medium	8
8	Administrators motivate new human resources to rely on continuous practice to activate the internal motivation for professional development.	3.51	1.07	high	3

Table 4.5 (Continued)

(n = 210)

NO	Duration	$\bar{X}$	S.D.	level	Order
9	Administrators build a sustainable support system to drive new human resources to transform effective practices from temporary measures into regular practices.	3.48	1.10	medium	4
10	Administrators help new human resources enhance their self-efficacy and boost their confidence in future professional growth.	3.45	1.04	medium	6
Total		3.47	1.05	medium	

As presented in Table 4.5, the duration dimension of professional development among new human resources was assessed at a medium level ($\bar{X}=3.47$). Based on the findings, the relevant items were ranked in descending order of their mean scores as follows: the highest mean was “Administrators develop systematic and sustainable professional development plans for new human resources ($\bar{X}=3.57$)”, followed by “Administrators regularly check the progress of new human resources' professional development and build feedback mechanisms ($\bar{X}=3.54$)”, “Administrators motivate new human resources to continuously improve and provide feedback and suggestions” was the lowest mean ($\bar{X}=3.37$). These findings indicate that administrators have established a relatively clear long-term planning and monitoring mechanism.

Table 4.6 Descriptive statistics for the content focus dimension of professional development among new human resources

(n = 210)

NO	Content Focus	$\bar{X}$	S.D.	level	Order
1	Administrators guide new human resources to build a systematic content system.	3.96	1.08	high	1
2	Administrators guide new human resources to reorganize content, presenting a logically coherent and hierarchically progressive content structure.	3.92	1.09	high	2
3	Administrators motivate new human resources to continuously optimize content and activity design.	3.79	1.09	high	8
4	Administrators guide new human resources to balance theoretical depth and practical application.	3.72	1.06	high	9
5	Administrators guide new human resources to organically integrate educational philosophy with the value of subject content into practice.	3.81	1.04	high	6
6	Administrators motivate new human resources to implement industry-education integration, enhancing their professional skills.	3.80	1.10	high	7
7	Administrators motivate new human resources to simulate industry scenarios and explore the application value of the content.	3.84	1.06	high	4
8	Administrators motivate new human resources to carry out project-based activities and implement the practical application of the content.	3.84	1.02	high	4

Table 4.6 (Continued)

(n = 210)

NO	Content Focus	$\bar{X}$	S.D.	level	Order
9	Administrators motivate new human resources to regularly update teaching syllabi, integrating cutting-edge content and restructuring the content framework.	3.66	1.07	high	10
10	Administrators motivate new human resources to build an ecosystem of professional development, forming distinctive teaching styles and academic directions.	3.86	1.09	high	3
Total		3.82	1.07	high	

As shown in Table 4.6, the content focus dimension of professional development among new human resources was rated at a high level ($\bar{X}=3.82$). Based on the findings, the items were ordered from the highest to the lowest mean score as follows: the item with the highest mean was “Administrators guide new human resources to build a systematic content system ($\bar{X}=3.96$)”, followed by “Administrators guide new human resources to reorganize content, presenting a logically coherent and hierarchically progressive content structure ($\bar{X}=3.92$)”, “Administrators motivate new human resources to regularly update teaching syllabi, integrating cutting-edge content and restructuring the content framework” was the lowest mean ($\bar{X}=3.66$). These findings indicate that administrators have placed considerable emphasis on systematic content development and logical organization.

Table 4.7 Descriptive statistics for the reflection dimension of professional development among new human resources

(n = 210)

NO	Reflection	$\bar{X}$	S.D.	level	Order
1	Administrators motivate new human resources to carry out targeted reflection around core issues.	3.54	1.23	high	1
2	Administrators motivate new human resources to identify key influencing factors and clarify improvement directions.	3.46	1.21	medium	3
3	Administrators guide new human resources to dare to question and objectively examine the rationality of their work.	3.48	1.25	medium	2
4	Administrators guide new human resources to analyze their strengths and weaknesses based on feedback.	3.41	1.23	medium	8
5	Administrators guide new human resources to use peer feedback and adjust subsequent strategies.	3.45	1.24	medium	5
6	Administrators guide new human resources to sort out successful experiences, achieving collaborative evolution of professional judgment.	3.45	1.24	medium	5
7	Administrators guide new human resources to collect evidence and conduct critical attribution reasoning.	3.38	1.29	medium	10
8	Administrators guide new human resources to analyze typical educational cases and extract reusable improvement strategies.	3.46	1.17	medium	3

Table 4.7 (Continued)

(n = 210)

NO	Reflection	$\bar{X}$	S.D.	level	Order
9	Administrators motivate new human resources to try new methods in micro-experiments and record the results and optimization plans.	3.45	1.25	medium	5
10	Administrators motivate new human resources through a "practice-reflection-adjustment" cycle, transforming them from novice teachers into expert teachers.	3.40	1.24	medium	9
Total		3.45	1.24	medium	

As reported in Table 4.7, the reflection dimension of professional development among new human resources was assessed at a moderate level ($\bar{X}=3.45$). Based on the findings, the relevant items were arranged in descending order according to their mean scores as follows: the highest mean was “Administrators motivate new human resources to carry out targeted reflection around core issues ($\bar{X}=3.54$)”, followed by “Administrators guide new human resources to dare to question and objectively examine the rationality of their work ($\bar{X}=3.48$)”, “Administrators guide new human resources to collect evidence and conduct critical attribution reasoning”, was the lowest mean ($\bar{X}=3.38$). These findings suggest that administrators have provided some support for problem-oriented and critical reflection, but reflection is less developed when it requires systematic evidence collection and deeper attribution analysis.

Part 3: The findings derived from the interview data concerning the professional development enhancement model.

Table 4.8 Personal information of the interviewee

(N=12)

Interviewee	Personal information	Interview Date	Interview time
Interviewee 1	Education: Doctor's degree Position: Director of Teacher Development Center Work experience: 15 years	Dec 24th, 2024	9:00 am GMT +8 45 minutes
Interviewee 2	Education: Doctor's degree Position: Deputy Director of the Teacher Development Center Work experience: 16 years	Dec 24th, 2024	15:30 pm GMT +8 38 minutes
Interviewee 3	Education: Doctor's degree Position: Director of Teaching Supervision Department Work experience: 10 years	Dec 25th, 2024	9:30 am GMT +8 35 minutes
Interviewee 4	Education: Doctor's degree Position: Vice President Work experience: 11 years	Dec 25th, 2024	16:00 pm GMT +8 37 minutes
Interviewee 5	Education: Doctor's degree Position: Director of the Planning Development and Quality Assurance Department Work experience: 18 years	Dec 29th, 2024	15:30 pm GMT +8 42 minutes
Interviewee 6	Education: Doctor's degree Position: Deputy Director of the Development Planning and Quality Assurance Department Work experience: 15 years	Jan 4th, 2025	10:00 am GMT +8 34 minutes
Interviewee 7	Education: Master's degree Position: Director of Academic Affairs Work experience: 26 years	Jan 4th, 2025	16:00 pm GMT +8 45 minutes

Table 4.8 (Continued)

(N=12)

Interviewee	Personal information	Interview Date	Interview time
Interviewee 8	Education: Master's degree Position: Deputy Director of the Academic Affairs Office Work experience: 21 years	Jan 5th,2025	9:30 am GMT +8 36 minutes
Interviewee 9	Education: Doctor's degree Position: Director of the Center for Educational Evaluation and Teacher Development Work experience: 16 years	Jan 5th,2025	16:30 pm GMT +8 33 minutes
Interviewee 10	Education: Master's degree Position: Director of the Center for Educational Evaluation and Teacher Development Work experience: 24 years	Jan 6th,2025	11:00 am GMT +8 39 minutes
Interviewee 11	Education: Doctor's degree Position: Deputy Director of the Center for Educational Evaluation and Teacher Development Work experience: 14 years	Jan 6th,2025	15:00 pm GMT +8 36 minutes
Interviewee 12	Education: Master's degree Position: Deputy Director of the Academic Affairs Office Work experience: 19 years	Jan 7th,2025	10:00 am GMT +8 41 minutes

According to Table 4.8, 12 experts were interviewed. Their working life ranged from 10 to 26 years, and there were 1 Director of Teacher Development Center, 1 Deputy Director of the Teacher Development Center, 1 Director of the Planning Development and Quality Assurance Department, 1 Deputy Director of the Development Planning and Quality Assurance Department, 2 Director of the Center for Educational Evaluation and Teacher Development, 1 Deputy Director of the Center for Educational Evaluation and Teacher Development. 1 Director of Academic Affairs, 2 Deputy Director of the Academic Affairs Office, 1 Vice President, 1 Director of the Teaching Supervision Department.

Analysis of interview results

1. In your opinion, how to improve the management of active learning activities in the 'Plan-Act-Observe-Reflect' cycle for the new human resources program? How to improve the active learning development path of the 'Plan-Act-Observe-Reflect' cycle for the new human resources?

2. In your opinion, how to improve the team collaboration management of the new human resources department? How to improve the development path of new human resources team collaboration?

3. In your opinion, how to improve the rectification management of new human resources duration? How to improve the duration development path of new human resources?

4. In your opinion, how to improve the new human resources content focus on reconstruction management? How to improve the new human resources content focus development path?

5. In your opinion, how to improve the evidence reflection management of new human resources? How to improve the reflection and internalization development path of new human resources?

Based on the above interview outline, detailed interview records have been compiled and are provided in Appendix C. If necessary, please refer to Appendix C for further details.

Based on the frequently identified problem-solving strategies emerging from the interviews, the professional development enhancement model for new human resources was developed by integrating human resource management theories, the characteristics of professional development, relevant national and Guangxi policies, and the researchers' practical experience. The resulting model is presented as follows.

Table 4.9 Professional development enhancement model for new human resources

The Professional Development	Professional development enhancement model for new human resources
Enhancing active learning	1 Guided by the context of the China-Vietnam border, integrate regional needs and professional development goals to enhance the practical motivation for proactive learning of new human resources. 2 Drive learning design through real tasks such as teaching, research, and service, enabling new human resources to learn by doing and learn by applying. 3 Institutionalize the 'Plan-Act-Observe-Reflect' active learning cycle to create a closed-loop, continuous, and active learning mechanism. 4 Build a question bank and question-oriented courses to promote in-depth active learning, starting from real teaching and research problems. 5 Establish a mentorship system, peer learning communities, and a lesson observation and feedback mechanism to strengthen active learning support through peer assistance and diversified feedback.

Table 4.9 (Continued)

The Professional Development	Professional development enhancement model for new human resources
	6 Relying on a digital platform to achieve resource integration, process recording, and data feedback, thereby enhancing the visualization and traceability of active learning. 7 Promote interdisciplinary, inter-institutional, and industry-academia collaboration to expand active learning environments and knowledge integration capabilities. 8 Embed the active learning process and its outcomes into evaluation, incentives, and professional development pathways, forming institutional support. 9 Guided by the values of teacher ethics, professional conduct, and regional mission education, promote the transformation of active learning from external drive to internalized drive.
Strengthening collaboration	1 Guided by the school's development vision, align professional development goals with team collaboration goals systematically. 2 Through stable and clear collaboration systems and supporting policies, provide predictable guarantees for new human resources to participate in team collaboration. 3 Institutionalize arrangements to integrate new human resources into teams in phases,

Table 4.9 (Continued)

The Professional Development	Professional development enhancement model for new human resources
	promoting the synchronized progression of collaborative tasks and professional development.
	4 Relying on the mentorship system and a diverse guidance framework, it provides continuous and precise support for collaborative work in the new human resources team.
	5 Promote experience sharing and capability generation through team collaboration learning mechanisms to enhance the quality of collaborative practice.
	6 Establish a development-oriented performance feedback and incentive mechanism to enhance the visibility and sense of achievement in collaborative contributions.
	7 Foster a team culture of trust, inclusiveness, and sharing to enhance psychological safety and a sense of belonging in collaborative participation.
	8 Optimize time scheduling, resource allocation, and administrative support to reduce the practical costs of team collaboration.
	9 Improve information governance and problem feedback mechanisms to ensure transparent operation and continuous improvement in team collaboration processes.

Table 4.9 (Continued)

The Professional Development	Professional development enhancement model for new human resources
Optimizing duration	1 Establish a progressive professional development timeline framework, clarifying the duration goals and task pacing for the three stages: 'onboarding—accumulation—stabilization'. 2 Incorporate duration management capabilities into the long-term development system, making duration management an internalized habit rather than scattered techniques through phased training and practice. 3 Encourage teaching and research to focus on stable directions for sustained duration accumulation, and avoid frequent short-term task changes to enhance output efficiency per unit of time. 4 Optimize task allocation and role transition mechanisms, control the intensity of administrative tasks during the onboarding period, and provide duration flexibility to support role adaptation. 5 Oriented towards developmental evaluation, reduce one-time performance pressure, recognize phased growth, and process investment to guide sustained investment. 6 Institutionalized reflection and experience internalization arrangements ensure that 'slow time' is used for summarizing, improving, and

Table 4.9 (Continued)

The Professional Development	Professional development enhancement model for new human resources
	reusing knowledge, enhancing the cumulative effect of sustained time investment.
	7 Implement mentorship systems and team collaboration mechanisms to enhance organizational integration and information sharing, reducing the time cost of trial and error and repetitive work.
	8 Establish a stress adaptation and professional identity support system to maintain motivation and resilience for sustained time commitment through psychological counseling and emotional support.
	9 Enhance understanding and utilization of systems, simplify system integration and processes, and help new human resources personnel transform institutional resources into a stable development rhythm.
Enhancing content focus	1 Guided by the school's mission and the development needs of Guangxi's border areas, guide the content of new human resources to focus on serving the region and strategic goals. 2 By clearly defining core job tasks and priorities, reduce content dispersion and ensure that new human resources content focuses on high-value work.

Table 4.9 (Continued)

The Professional Development	Professional development enhancement model for new human resources
	3 Centering on advantageous disciplines and a clear professional positioning, promote the formation of teaching and research mainlines with a content focus for new human resources. 4 Enhance the structure and focus of teaching content through modularization of teaching content, construction of course clusters, and course chains. 5 Guide the new human resources to establish the main theme of scientific research, achieving coordinated development of scientific research, teaching, and practical content. 6 Leveraging Universities-enterprise collaboration and project practice, promote content focusing on real problems and application scenarios. 7 Integrate and share resources through digital platforms to improve content management efficiency and focus capability. 8 By utilizing mentorship and apprenticeship-style knowledge transfer, guide new human resources personnel to quickly identify their professional development priorities and reduce trial and error.

Table 4.9 (Continued)

The Professional Development	Professional development enhancement model for new human resources
	9 Implement differentiated training based on professional development stages, guiding new human resources personnel to systematically focus on core content at different stages. 10 Align evaluation and incentive mechanisms with content-focused goals, and drive dynamic optimization of professional development paths through content-focused adjustments and optimizations.
Strengthening reflection	1 Develop a systematic reflection system, incorporating evidence-based reflection into institutional processes such as recruitment, performance evaluation, training, and promotion. 2 Supported by the standardization and visualization of multi-dimensional performance data, promotes the objectification and routinization of the reflection process. 3 Establish a 'continuous feedback-improvement' closed loop to ensure that reflection conclusions can be transformed into executable improvement measures and evaluate their effectiveness. 4 Integrate the outcomes of reflection systematically into teacher professional development and promotion evaluations to

Table 4.9 (Continued)

The Professional Development	Professional development enhancement model for new human resources
	enhance the motivation for internalizing behavior.
	5 Build a knowledge base and sharing platform for construction reflection outcomes, accumulate typical cases, and achieve experience reuse.
	6 Cultivate a reflective organizational culture that encourages experience sharing, tolerance for trial and error, and team learning.
	7 Strengthen capacity building and professional training to enhance new human resources' ability in evidence interpretation, data analysis, and reflection.
	8 Link the effectiveness of reflection with compensation, training, and job adjustments through incentives and resource allocation to enhance participation enthusiasm.
	9 Benchmark against excellent external practices and, in combination with regional positioning, guide reflection focusing on serving the development of the Sino-Vietnamese border region and the cultivation of application-oriented talents.

According to Table 4.9, the researcher developed a professional development enhancement model for new human resources, comprising 46 measures in total. Of these, 9 measures focused on promoting active learning, 9 addressed collaboration, 9

targeted the optimization of duration, 10 emphasized content focus, and the remaining 9 focused on strengthening reflection.

The relatively balanced distribution of measures across the five dimensions indicates that the model adopts a multidimensional and integrated approach rather than relying on a single aspect of professional development. Content Focus received one additional measure, reflecting the need to further strengthen systematic content development, curriculum optimization, and the integration of professional learning with practical and regional needs. Overall, the 46 measures provide a comprehensive framework for addressing the identified weaknesses and promoting sustainable professional development among new human resources.

The professional development enhancement model for new human resources is now shown in dimensions as follows:



Figure 4.1 Professional development enhancement model

For enhancing active learning, the model proposed 9 strategies to improve the professional development of new human resources.

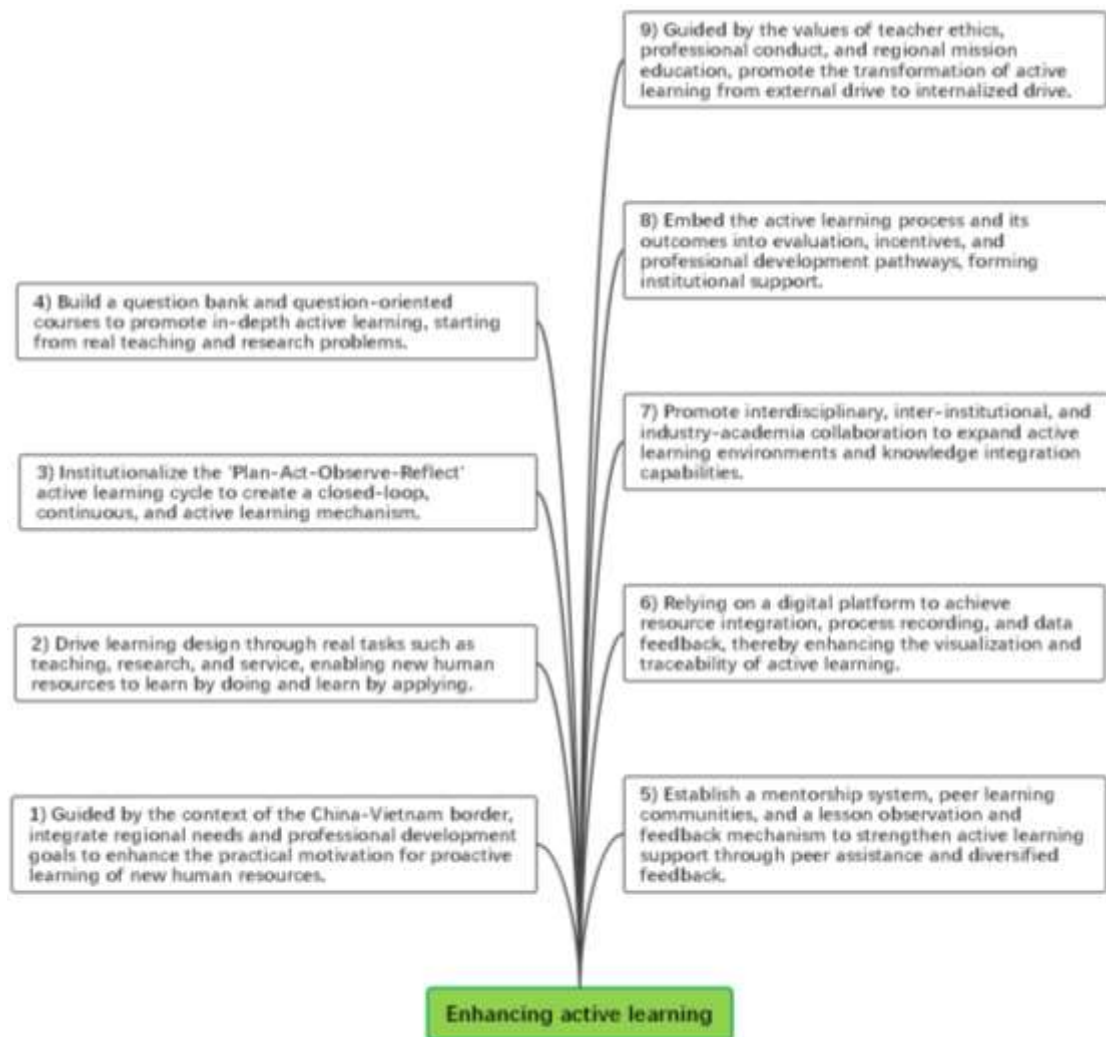


Figure 4.2 Model for enhancing active learning

For strengthening collaboration, the model proposed 9 strategies to enhance the professional development of new human resources.

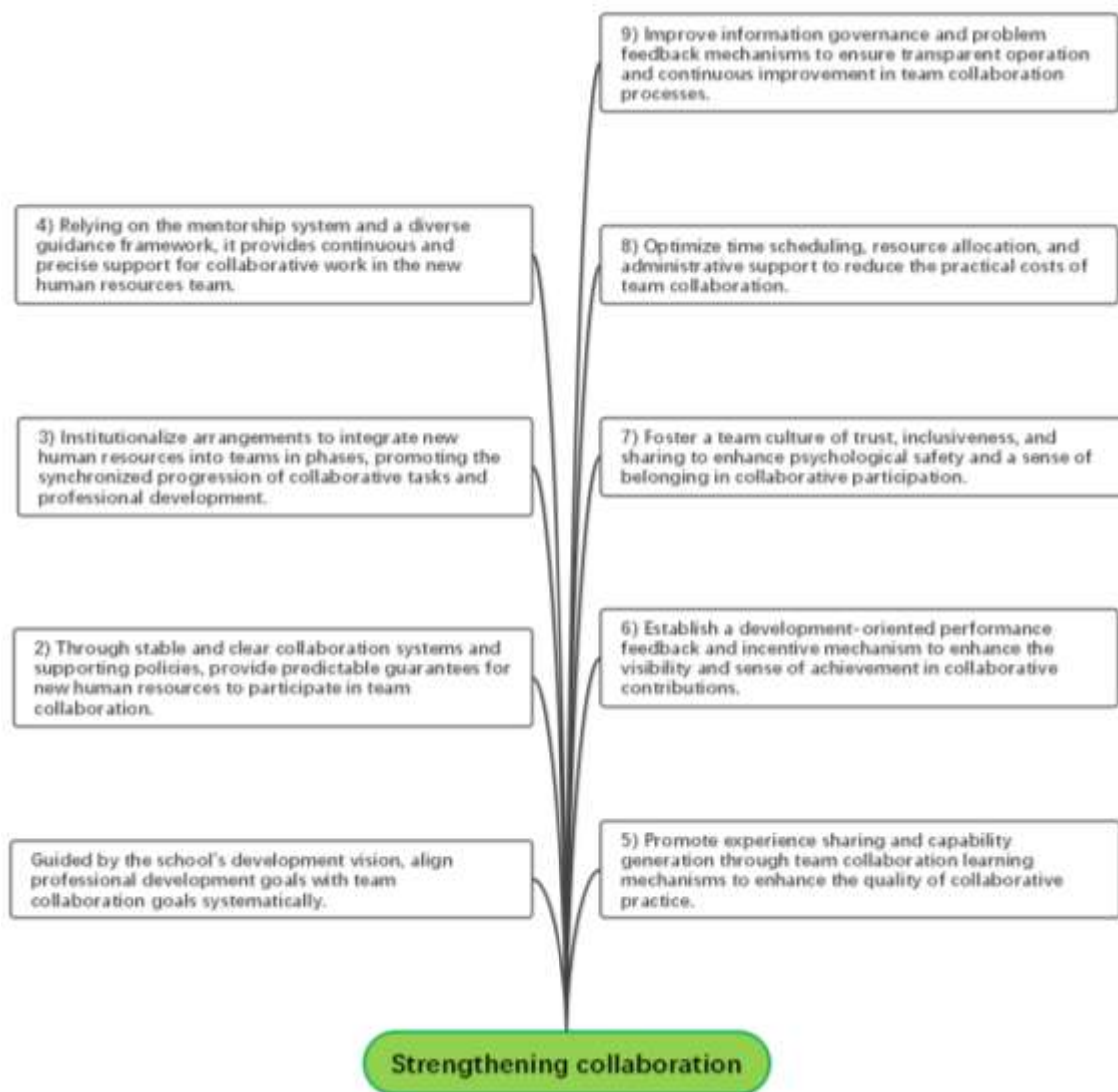


Figure 4.3 Model for strengthening collaboration

For optimizing duration, the model proposed 9 strategies to enhance the professional development of new human resources.

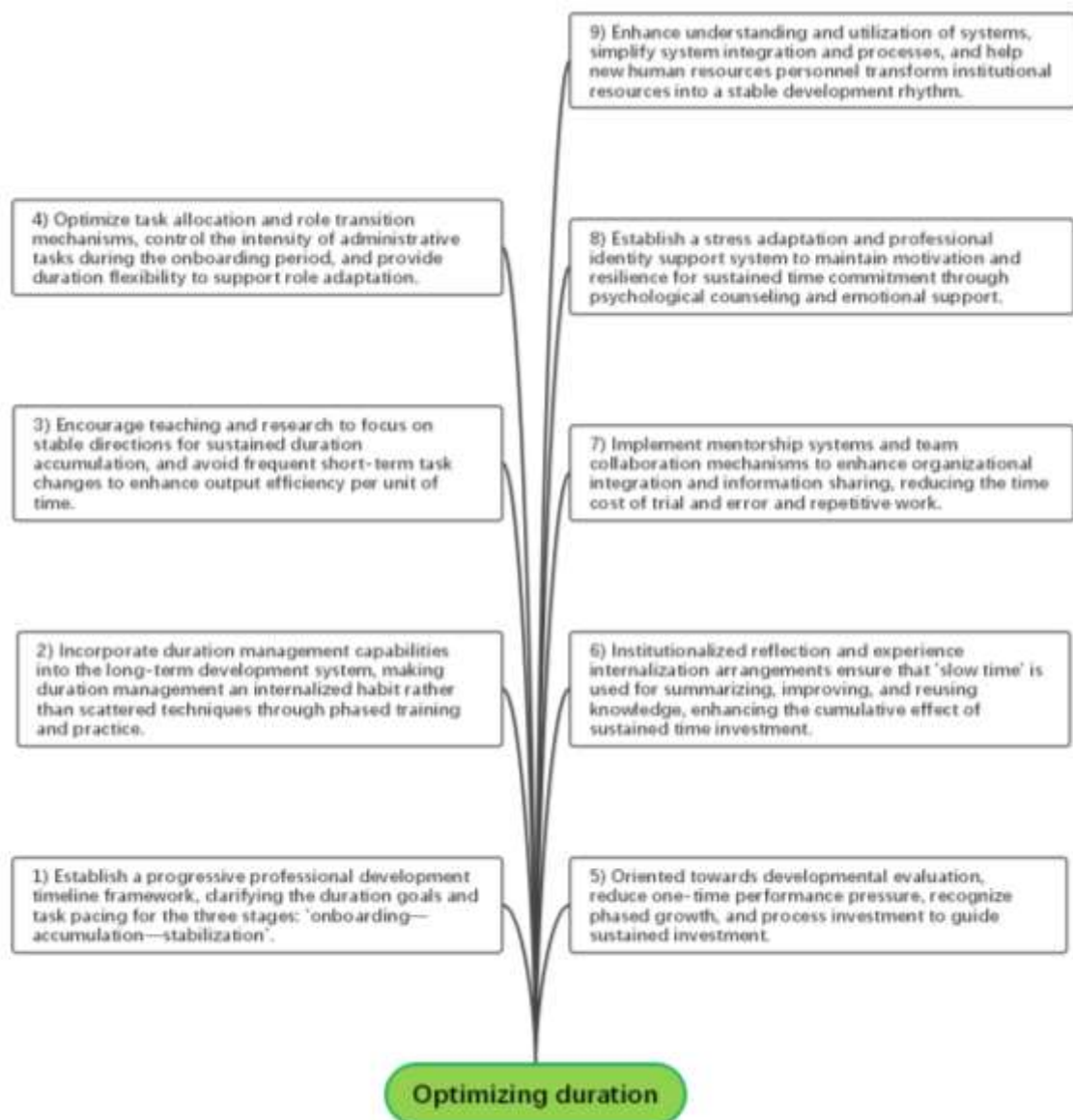


Figure 4.4 Model for optimizing duration

For enhancing content focus, the model proposed 10 strategies to enhance the professional development of new human resources.

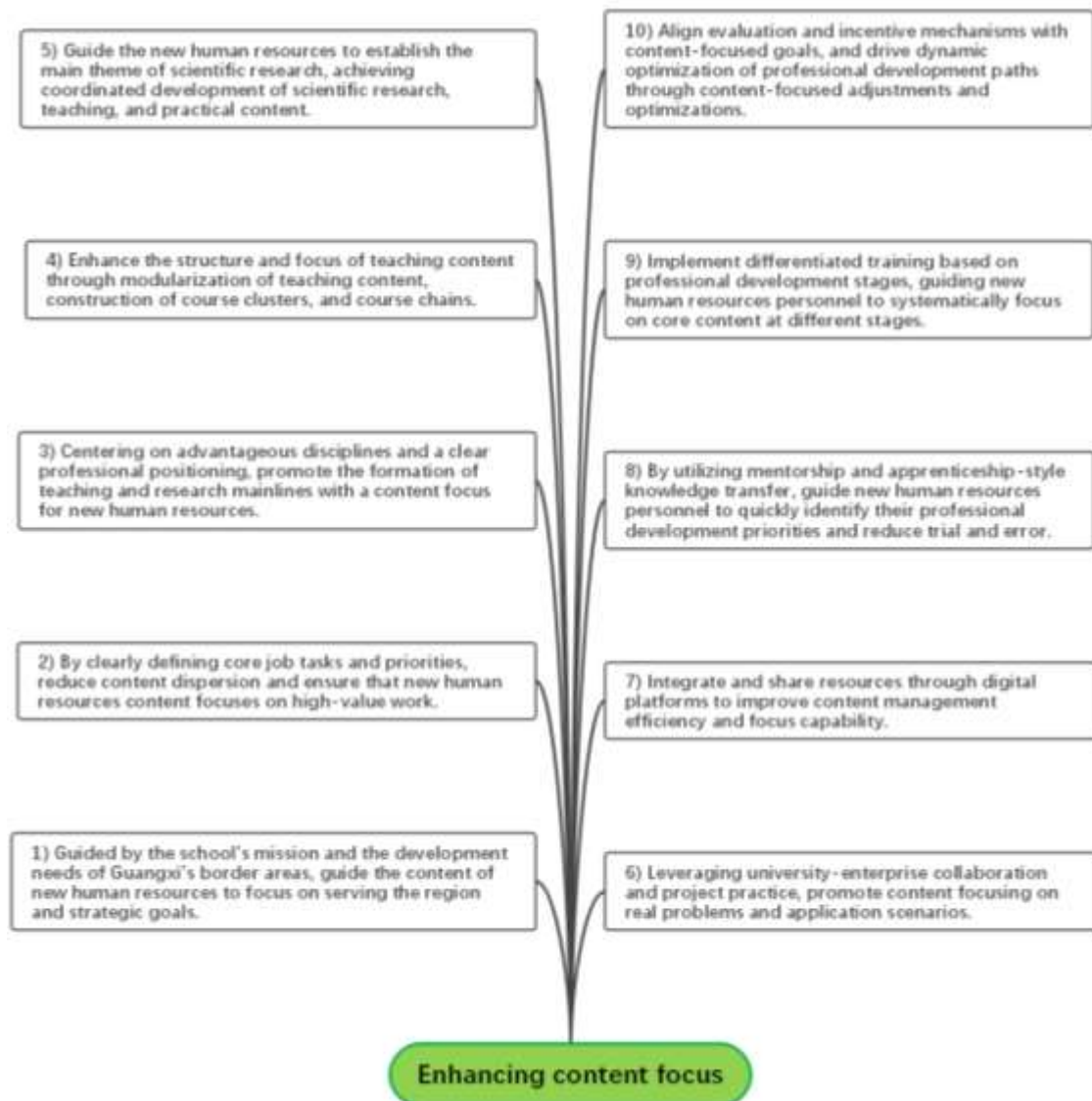


Figure 4.5 Model for enhancing content focus

For strengthening reflection, the model proposed 9 strategies to enhance the professional development of new human resources.

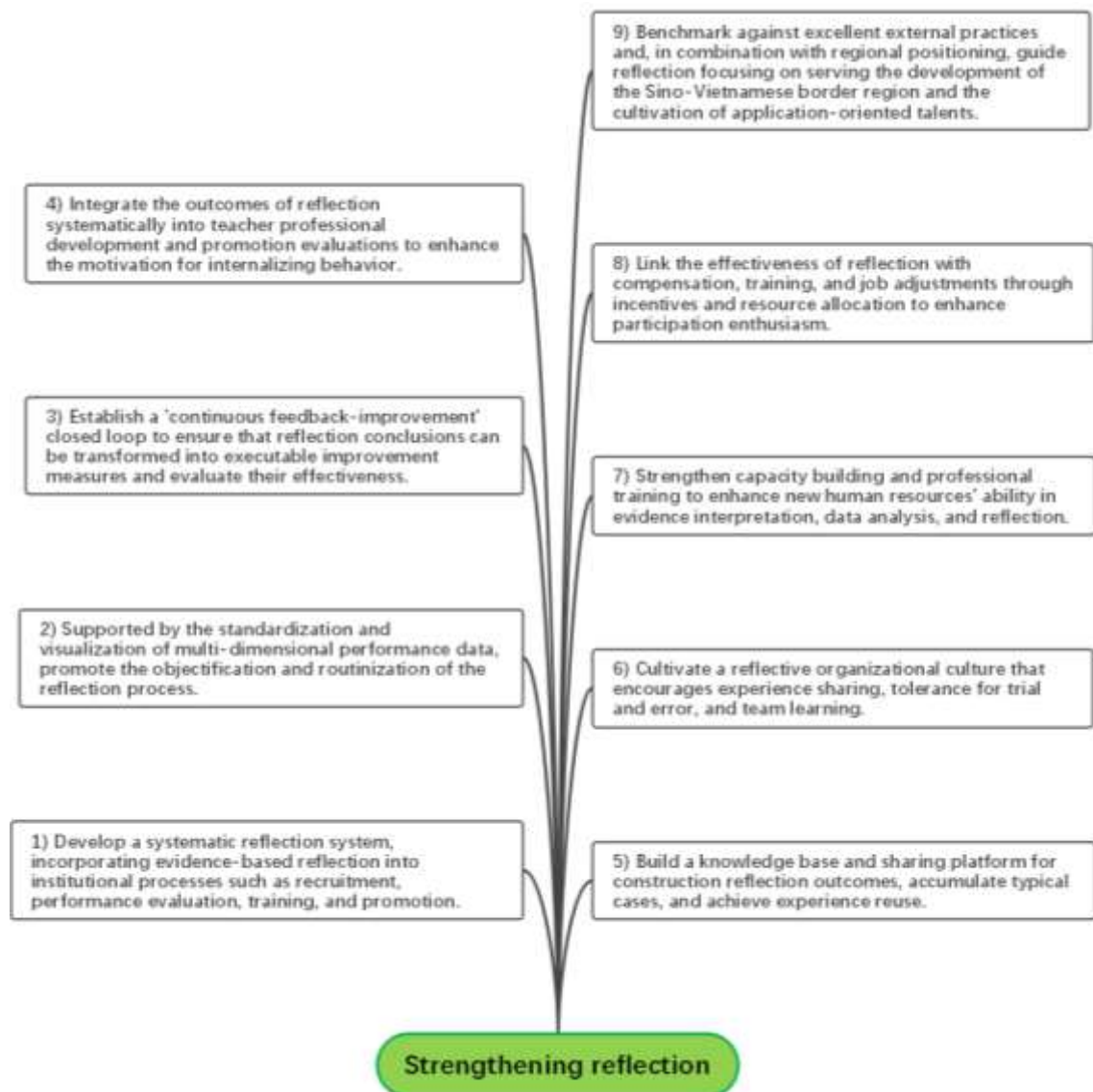


Figure 4.6 Model for strengthening reflection

Part 4: The findings regarding the suitability and feasibility of the professional development enhancement model for new human resources are reported using the mean and standard deviation.

Table 4.10 Descriptive statistics for evaluating the suitability and feasibility of the professional development enhancement model across five dimensions.

(N = 9)

Professional development enhancement model for new human resources		Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
1	Enhancing active learning	4.67	0.78	highest	4.42	0.84	high
2	Strengthening collaboration	4.64	0.78	highest	4.46	0.83	high
3	Optimizing duration	4.51	0.83	highest	4.31	0.82	high
4	Enhancing content focus	4.63	0.80	highest	4.44	0.88	high
5	Strengthening reflection	4.63	0.78	highest	4.40	0.85	high
Total		4.62	0.78	highest	4.41	0.84	high

As indicated in Table 4.10, the findings demonstrated that the professional development enhancement model for new human resources achieved the highest level of suitability across all five dimensions ($\bar{X}=4.62$), indicating that the proposed model was highly suitable for implementation in border universities in Guangxi. Based on the findings, the item receiving the highest suitability rating was "enhancing active learning" ($\bar{X}=4.67$), followed by "strengthening collaboration" ($\bar{X}=4.64$), and "optimizing duration" ($\bar{X}=4.51$) was the lowest. The high scores across all five dimensions indicate that the model was considered broadly applicable and well aligned with the professional development needs. The relatively higher scores for active learning and collaboration suggest that experts particularly recognized the value of practice-oriented learning and collaborative mechanisms, whereas the comparatively lower score for Duration indicates that the implementation of sustained and phased professional development may require greater consideration of

institutional time constraints and contextual conditions. Nevertheless, the high mean score for Duration confirms that this dimension remains highly suitable and contributes to the overall applicability of the model.

The findings indicated that the feasibility of the professional development enhancement model across the five dimensions was rated at a high level ($\bar{X}=4.41$), indicating that the proposed model was highly feasible for implementation. Among the five aspects, the highest feasibility data was "strengthening collaboration" ($\bar{X}=4.46$), followed by "enhancing content focus" ($\bar{X}=4.44$), and "optimizing duration" ($\bar{X}=4.31$) was the lowest. The high feasibility scores suggest that most proposed measures can be implemented within existing institutional structures and professional development practices. The comparatively lower score for Duration may indicate that sustained time investment requires greater institutional coordination, protected time, and long-term administrative support, although it remains within the high-feasibility range.

Table 4.11 Mean scores and standard deviations for assessing the suitability and feasibility of the professional development enhancement model, specifically in enhancing active learning.

(N = 9)

Professional development enhancement model for new human resources		Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
Enhancing active learning							
1	Guided by the context of the China-Vietnam border, integrate regional needs and professional development goals to enhance the practical motivation for proactive learning of new human resources.	4.89	0.53	highest	4.78	0.71	highest
2	Drive learning design through real tasks such as teaching, research, and service, enabling new human resources to learn by doing and learn by applying.	4.67	0.8	highest	4.56	0.84	highest
3	Institutionalize the 'Plan-Act-Observe-Reflect' active learning cycle to create a closed-loop, continuous, and active learning mechanism.	4.56	0.84	highest	4.22	0.71	high
4	Build a question bank and question-oriented courses to promote in-depth active learning, starting from real	4.56	0.94	highest	4.33	0.80	High

Table 4.11 (Continued)

(N = 9)

	Professional development enhancement model for new human resources	Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
	teaching and research problems.						
5	Establish a mentorship system, peer learning communities, and a lesson observation and feedback mechanism to strengthen active learning support through peer assistance and diversified feedback.	4.67	0.80	highest	4.56	0.94	highest
6	Relying on a digital platform to achieve resource integration, process recording, and data feedback, thereby enhancing the visualization and traceability of active learning.	4.56	0.84	highest	4.00	0.94	high
7	Promote interdisciplinary, inter- institutional, and industry- academia collaboration to expand active learning environments and knowledge integration capabilities.	4.67	0.80	highest	4.22	0.94	high
8	Embed the active learning process and its outcomes into evaluation, incentives, and professional development	4.67	0.80	highest	4.44	0.84	High

Table 4.11 (Continued)

(N = 9)

Professional development enhancement model for new human resources		Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
pathways, forming institutional support.							
9	Guided by the values of teacher ethics, professional conduct, and regional mission education, promote the transformation of active learning from external drive to internalized drive.	4.78	0.71	highest	4.67	0.80	highest
Total		4.67	0.78	highest	4.42	0.84	high

According to Table 4.11, the data show that the overall expert evaluation of the suitability of the model for enhancing active learning is at the highest level ($\bar{X}=4.67$), and the feasibility of the model for enhancing active learning is at a high level ($\bar{X}=4.42$). It indicates the high suitability and feasibility of the model.

The suitability of model for enhancing active learning, the levels were ranked in descending order according to their mean scores: the highest mean was the first measure ($\bar{X}=4.89$), followed by the ninth measure ($\bar{X}=4.78$). The third measure, the fourth measure and the sixth measure was the lowest mean ($\bar{X}=4.56$).

The feasibility of model for enhancing active learning, the levels were ranked in descending order according to their mean scores: the highest mean was the first measure ($\bar{X}=4.78$), followed by the ninth measure ($\bar{X}=4.67$), and the sixth measure was the lowest mean ($\bar{X}=4.00$).

Table 4.12 Mean scores and standard deviations for assessing the suitability and feasibility of the professional development enhancement model, specifically in strengthening collaboration.

(N = 9)

Professional development enhancement model for new human resources		Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
Strengthening collaboration							
1	Guided by the school's development vision, align professional development goals with team collaboration goals systematically.	4.89	0.53	highest	4.78	0.71	highest
2	Through stable and clear collaboration systems and supporting policies, provide predictable guarantees for new human resources to participate in team collaboration.	4.44	0.84	high	4.33	0.80	high
3	Institutionalize arrangements to integrate new human resources into teams in phases, promoting the synchronized progression of collaborative tasks and professional development.	4.56	0.84	highest	4.33	0.80	high
4	Relying on the mentorship system and a diverse guidance framework, it provides continuous and precise support for collaborative work in team.	4.67	0.80	highest	4.56	0.84	highest

Table 4.12 (Continued)

(N = 9)

Professional development enhancement model for new human resources		Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
5	Promote experience sharing and capability generation through team collaboration learning mechanisms to enhance the quality of collaborative practice.	4.67	0.80	highest	4.44	0.87	high
6	Establish a development-oriented performance feedback and incentive mechanism to enhance the visibility and sense of achievement in collaborative contributions.	4.78	0.71	highest	4.56	0.84	highest
7	Foster a team culture of trust, inclusiveness, and sharing to enhance psychological safety and a sense of belonging in collaborative participation.	4.67	0.80	highest	4.44	0.94	high
8	Optimize time scheduling, resource allocation, and administrative support to reduce the practical costs of team collaboration.	4.56	0.84	highest	4.22	0.71	high
9	Improve information governance and problem feedback mechanisms to	4.56	0.84	highest	4.44	0.94	high

Table 4.12 (Continued)

(N = 9)

Professional development enhancement model for new human resources	Suitability			Feasibility		
	$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
ensure transparent operation and continuous improvement in team collaboration processes.						
Total	4.64	0.78	highest	4.46	0.83	high

According to Table 4.12, the data show that the overall expert evaluation of the suitability of the model for strengthening collaboration is at the highest level ($\bar{X}=4.64$), and the feasibility of the model for strengthening collaboration is at a high level ($\bar{X}=4.46$). It indicates the high suitability and feasibility of the model.

The suitability of model for strengthening collaboration, the levels from the highest to lowest mean were as follows: the highest mean was the first measure ($\bar{X}=4.89$), followed by the sixth measure ($\bar{X}=4.78$). The second measure had the lowest mean ($\bar{X}=4.44$).

The feasibility of model for strengthening collaboration, the levels from the highest to lowest mean were as follows: the highest mean was the first measure ($\bar{X}=4.78$), followed by the fourth measure, the sixth measure ($\bar{X}=4.56$), and the eighth measure was the lowest mean ($\bar{X}=4.22$).

Table 4.13 Mean scores and standard deviations for assessing the suitability and feasibility of the professional development enhancement model, specifically in optimizing duration.

(N = 9)

Professional development enhancement model for new human resources		Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
Optimizing duration							
1	Establish a progressive professional development timeline framework, clarifying the duration goals and task pacing for the three stages: 'onboarding—accumulation—stabilization'.	4.67	0.80	highest	4.67	0.84	highest
2	Incorporate duration management capabilities into the long-term development system, making duration management an internalized habit rather than scattered techniques through phased training and practice.	4.56	0.84	highest	4.22	0.71	high
3	Encourage teaching and research to focus on stable directions for sustained duration accumulation, and avoid frequent short-term task changes to enhance output efficiency per unit of time.	4.44	0.84	high	4.22	0.87	High

Table 4.13 (Continued)

(N = 9)

Professional development enhancement model for new human resources		Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
4	Optimize task allocation and role transition mechanisms, control the intensity of administrative tasks during the onboarding period, and provide duration flexibility to support role adaptation.	4.44	0.84	high	4.22	0.71	high
5	Oriented towards developmental evaluation, reduce one-time performance pressure, recognize phased growth, and process investment to guide sustained investment.	4.44	0.84	high	4.22	0.71	high
6	Institutionalized reflection and experience internalization arrangements ensure that 'slow time' is used for summarizing, improving, and reusing knowledge, enhancing the cumulative effect of sustained time investment.	4.33	0.84	high	4.11	0.94	High
7	Implement mentorship systems and team collaboration mechanisms to enhance organizational	4.67	0.80	highest	4.56	0.94	highest

Table 4.13 (Continued)

(N = 9)

Professional development enhancement model for new human resources		Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
integration and information sharing, reducing the time cost of trial and error and repetitive work.							
8	Establish a stress adaptation and professional identity support system to maintain motivation and resilience for sustained time commitment through psychological counseling and emotional support.	4.56	0.84	highest	4.22	0.87	high
9	Enhance understanding and utilization of systems, simplify system integration and processes, and help new human resources personnel transform institutional resources into a stable development rhythm.	4.44	0.84	high	4.33	0.80	high
Total		4.51	0.83	highest	4.31	0.82	high

According to Table 4.13, the data show that the overall expert evaluation of the suitability of the model for optimizing duration is at the highest level ($\bar{X}=4.51$), and the feasibility of the model for optimizing duration is at a high level ($\bar{X}=4.31$). It indicates the high suitability and feasibility of the model.

The suitability of the model for optimizing duration, the levels were ranked in descending order according to their mean scores: the highest mean was the first measure and the seventh measure ($\bar{X}=4.67$), followed by the second measure and the eighth measure ($\bar{X}=4.56$). The sixth measure was the lowest mean ($\bar{X}=4.33$).

The feasibility of the model for optimizing duration, was ranked in descending order according to their mean scores: the highest mean was the first measure ($\bar{X}=4.67$), followed by the seventh measure ($\bar{X}=4.56$), and the sixth measure was the lowest mean ($\bar{X}=4.11$).

Table 4.14 Mean scores and standard deviations for assessing the suitability and feasibility of the professional development enhancement model, specifically in enhancing content focus.

(N = 9)

Professional development enhancement model for new human resources		Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
Enhancing content focus							
1	Guided by the school's mission and the development needs of Guangxi's border areas, guide the content of new human resources to focus on serving the region and strategic goals.	4.78	0.71	highest	4.67	0.80	Highest
2	By clearly defining core job tasks and priorities, reduce content dispersion and ensure that new human resources content focuses on high-value work.	4.56	0.84	highest	4.44	0.94	high

Table 4.14 (Continued)

(N = 9)

	Professional development enhancement model for new human resources	Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
3	Centering on advantageous disciplines and a clear professional positioning, promote the formation of teaching and research mainlines with a content focus for new human resources.	4.56	0.84	highest	4.44	0.84	high
4	Enhance the structure and focus of teaching content through modularization of teaching content, construction of course clusters, and course chains.	4.56	0.84	highest	4.44	0.94	high
5	Guide the new human resources to establish the main theme of scientific research, achieving coordinated development of scientific research, teaching, and practical content.	4.44	0.84	high	4.22	0.94	High
6	Leveraging Universities-enterprise collaboration and project practice, promote content focusing on real problems and application scenarios.	4.67	0.80	highest	4.44	0.87	high

Table 4.14 (Continued)

(N = 9)

Professional development enhancement model for new human resources		Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
7	Integrate and share resources through digital platforms to improve content management efficiency and focus capability.	4.56	0.84	highest	4.22	0.94	high
8	By utilizing mentorship and apprenticeship-style knowledge transfer, guide new human resources personnel to quickly identify their professional development priorities and reduce trial and error.	4.67	0.80	highest	4.56	0.84	highest
9	Implement differentiated training based on professional development stages, guiding new human resources personnel to systematically focus on core content at different stages.	4.67	0.80	highest	4.44	0.84	High
10	Align evaluation and incentive mechanisms with content-focused goals, and drive dynamic optimization of professional development paths through content-focused adjustments and optimizations.	4.78	0.71	highest	4.56	0.84	highest
Total		4.63	0.80	highest	4.44	0.88	high

According to Table 4.14, the data show that the overall expert evaluation of the suitability of the model for enhancing content focus is at the highest level ($\bar{X}=4.63$), and feasibility of the model for enhancing content focus is at a high level ($\bar{X}=4.44$). It indicates the high suitability and feasibility of the model.

The suitability of the model for enhancing content focus, the levels from the highest to lowest mean were as follows: the highest mean was the first measure and the tenth measure ($\bar{X}=4.78$), followed by the sixth measure, the eighth measure, and the ninth measure ($\bar{X}=4.67$). The fifth measure was the lowest mean ($\bar{X}=4.44$).

The feasibility of the model for enhancing content focus, the levels from the highest to lowest mean, were as follows: the highest mean was the first measure ($\bar{X}=4.67$), followed by the eighth measure ($\bar{X}=4.56$), and the fifth measure was the lowest mean ($\bar{X}=4.22$).

Table 4.15 Mean scores and standard deviations for assessing the suitability and feasibility of the professional development enhancement model, specifically in strengthening reflection.

(N = 9)							
Professional development enhancement model for new human resources		Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
Strengthening reflection							
1	Develop a systematic reflection system, incorporating evidence-based reflection into institutional processes such as recruitment, performance evaluation, training, and promotion.	4.44	0.84	high	4.22	0.71	high

Table 4.15 (Continued)

(N = 9)

Professional development enhancement model for new human resources		Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
2	Supported by the standardization and visualization of multi-dimensional performance data, promote the objectification and routinization of the reflection process.	4.56	0.84	highest	4.11	0.94	high
3	Establish a 'continuous feedback-improvement' closed loop to ensure that reflection conclusions can be transformed into executable improvement measures and evaluate their effectiveness.	4.56	0.84	highest	4.11	0.71	High
4	Integrate the outcomes of reflection systematically into teacher professional development and promotion evaluations to enhance the motivation for internalizing behavior.	4.67	0.80	highest	4.56	0.84	highest
5	Build a knowledge base and sharing platform for construction reflection outcomes, accumulate typical cases, and achieve experience reuse.	4.56	0.84	highest	4.22	0.87	high

Table 4.15 (Continued)

(N = 9)

Professional development enhancement model for new human resources		Suitability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
6	Cultivate a reflective organizational culture that encourages experience sharing, tolerance for trial and error, and team learning.	4.56	0.84	highest	4.44	0.94	high
7	Strengthen capacity building and professional training to enhance new human resources' ability in evidence interpretation, data analysis, and reflection.	4.67	0.80	highest	4.56	0.84	highest
8	Link the effectiveness of reflection with compensation, training, and job adjustments through incentives and resource allocation to enhance participation enthusiasm.	4.78	0.71	highest	4.56	0.80	highest
9	Benchmark against excellent external practices and, in combination with regional positioning, guide reflection focusing on serving the development of the Sino-Vietnamese border region and the cultivation of application-oriented talents.	4.89	0.53	highest	4.78	0.96	highest
Total		4.63	0.78	highest	4.40	0.85	high

According to Table 4.15, the data show that the overall expert evaluation of the suitability of the model for strengthening reflection is at the highest level ($\bar{X}=4.63$), and feasibility of the model for strengthening reflection is at a high level ($\bar{X}=4.40$). It indicates the high suitability and feasibility of the model.

The suitability of model for strengthening reflection, the levels were ranked in descending order according to their mean scores: the highest mean was the ninth measure ($\bar{X}=4.89$), followed by the eighth measure ($\bar{X}=4.78$). The first measure was the lowest mean ($\bar{X}=4.44$).

The feasibility of the model for strengthening reflection, the levels were ranked in descending order according to their mean scores: the highest mean was the ninth measure ($\bar{X}=4.78$), followed by the fourth measure, the seventh measure, and the eighth measure ($\bar{X}=4.56$). The second measure and the third measure had the lowest mean ($\bar{X}=4.11$).

Chapter 5

Conclusion Discussion and Recommendations

The primary objective of this study was to develop a professional development enhancement model for new human resources. Data were collected using three research instruments: a questionnaire, a structured interview, and an evaluation form. The collected data were analyzed using percentages, mean scores, and standard deviations. The major findings, discussion, conclusions, and recommendations are presented as follows.

Conclusion

The research was a professional development enhancement model for new human resources. The researcher summarized the conclusion into 3 parts; the details are as follows:

Part 1: the current situation of the professional development of new human resources.

Part 2: the professional development enhancement model for new human resources.

Part 3: the suitability and feasibility of professional development enhancement model for new human resources.

Part 1: The current situation of professional development of new human resources.

As shown in Table 4.2, the findings indicated that the professional development status of new human resources was at a high level across the five dimensions. Based on the findings, the five dimensions were ranked in descending order of their mean scores, with content focus obtaining the highest mean, followed by active learning, while reflection recorded the lowest mean.

Active learning: As presented in Table 4.3, the findings indicated that the professional development status of new human resources was at a high level in the active learning dimension. Based on the findings, the dimensions were ranked in descending order according to their mean scores as follows: the highest mean was “Administrators develop a 'research-practice' mechanism for new human resources to actively improve their ability of education”, followed by “Administrators motivate new human resources to actively participate in interdisciplinary educational activities”. The lowest mean was “Administrators motivate new human resources to proactively actively in the 'Plan–Act–Observe–Reflect' cycle”.

Collaboration. As shown in Table 4.4, the findings indicated that the professional development status of new human resources was at a high level in the collaboration dimension. The findings showed that the dimensions were ordered according to their mean scores, from highest to lowest, as follows: the highest mean was “Administrators guide new human resources to experience the multi-dimensional interactive value”, followed by “Administrators help new human resources achieve interdisciplinary or cross-departmental collaboration”, “Administrators adjust the team collaboration model for new human resources to strengthen team collaboration skills” was the lowest mean.

Duration: As presented in Table 4.5, the findings indicated that the professional development status of new human resources was at a medium level in the duration dimension. In light of the results, the dimensions are presented below in descending order of mean scores: the highest mean was “Administrators develop systematic and sustainable professional development plans for new human resources”, followed by “Administrators regularly check the progress of new human resources' professional development and build feedback mechanisms”, “Administrators motivate new human resources to continuously improve and provide feedback and suggestions” was the lowest mean.

Content focus: As indicated in Table 4.6, the findings showed that the professional development status of new human resources was at a high level in the content focus dimension. According to the results, the five dimensions were ranked

in descending order of their mean scores as follows: the highest mean was “Administrators guide new human resources to build a systematic content system”, followed by “Administrators guide new human resources to reorganize content, presenting a logically coherent and hierarchically progressive content structure”, “Administrators motivate new human resources to regularly update teaching syllabi, integrating cutting-edge content and restructuring the content framework” was the lowest mean.

Reflection: As shown in Table 4.7, the findings indicated that the professional development status of new human resources was at a medium level in the reflection dimension. The five dimensions were subsequently ranked according to their mean scores, beginning with the highest and ending with the lowest, as follows: the highest mean was “Administrators motivate new human resources to carry out targeted reflection around core issues”, followed by “Administrators guide new human resources to dare to question and objectively examine the rationality of their work”, “Administrators guide new human resources to collect evidence and conduct critical attribution reasoning” was the lowest mean.

Part 2: the professional development enhancement model for new human resources.

Based on the frequently identified problem-solving strategies emerging from the interviews, the professional development enhancement model for new human resources was developed by integrating human resource management theories, the characteristics of professional development, relevant national and Guangxi policies, and the researchers’ practical experience. The resulting model is presented as follows.

According to Table 4.9, the professional development enhancement model for new human resources comprises five dimensions and a total of 46 measures. Specifically, 9 measures address active learning, 9 focus on collaboration, 9 target duration, 10 emphasize content focus, and 9 are devoted to reflection. The 46

specific measures of the model are presented in Figure 4.1, the professional development enhancement model.

The relatively balanced distribution of measures across the five dimensions indicates that the model adopts a multidimensional and integrated approach rather than relying on a single aspect of professional development. Content Focus received one additional measure, reflecting the need to further strengthen systematic content development, curriculum optimization, and the integration of professional learning with practical and regional needs. Overall, the 46 measures provide a comprehensive framework for addressing the identified weaknesses and promoting sustainable professional development among new human resources.

Part 3: The suitability and feasibility of the professional development enhancement model for new human resources.

The professional development enhancement model for new human resources received high to very high ratings for suitability and feasibility across the five dimensions, with mean scores ranging from 4.31 to 4.67. These findings demonstrate that the proposed model is both suitable and feasible for implementation.

The suitability of enhancing active learning was at the highest level, with a level of 4.67, which means the model for enhancing active learning for new human resources. The feasibility of enhancing active learning was at a high level, with a level of 4.42, which means the model for enhancing active learning for new human resources was feasible.

The suitability of strengthening collaboration was at the highest level with a level of 4.64, which means the model for strengthening collaboration for new human resources are suitability. The feasibility of strengthening collaboration was at a high level with a level of 4.46, which means the model for strengthening collaboration for new human resources was feasibility.

The suitability of optimizing duration was at the highest level with a level of 4.51, which means the model for optimizing duration for new human resources are

suitability. The feasibility of optimizing duration was at a high level with a level of 4.31, which means the model for optimizing duration for new human resources was feasibility.

The suitability of enhancing content focus was at the highest level with a level of 4.63, which means the model for enhancing content focus for new human resources are suitability. The feasibility of enhancing content focus was at a high level, with a level of 4.44, which means the model for enhancing content focus for new human resources was feasibility.

The suitability of strengthening reflection was at the highest level, with a level of 4.63, which means the model for strengthening reflection for new human resources are suitability. The feasibility of strengthening reflection was at a high level, with a level of 4.40, which means the model for strengthening reflection for new human resources was feasible.

Discussion

The research in the professional development enhancement model for new human resources. The discussion was organized into three main parts, which are presented in detail below:

Part 1: The current situation of professional development for new human resources.

The findings revealed that the professional development status of new human resources varied across the five dimensions and was generally rated at a high level. Based on the results, the five dimensions were ranked according to their respective levels. Content focus was ranked first, followed by active learning in second place. Collaboration occupied the third position, while duration ranked fourth. Reflection was ranked fifth, indicating the lowest level among the five dimensions. Among these dimensions, content focus achieved the highest rating and remained at a high level. Considering the results of this study, according to Asterhan, C. S., & Lefstein, A.'s research (2024, p.13), to enable such a study, researchers

typically provide professional development to the participating teachers in order to assist them in implementing the intervention – a new curriculum, teaching practices, instructional materials, or some combination thereof. In this study, the level of content focus is the highest level, indicating that in the professional development, it is necessary to systematically advance professional growth from three dimensions: cognitive understanding, practical reflection, and continuous support. First, new human resources should be guided to develop an in-depth understanding of the theoretical foundations, core concepts, and teaching objectives underpinning the intervention measures, as well as the educational intentions behind new curriculum design, changes in teaching practices, and the use of instructional materials. This allows them to integrate the intervention requirements with their existing teaching beliefs and understand “why it is implemented in this way.” Second, through exemplary teaching cases, examples of instructional material use, practical exercises, and reflection activities based on classroom evidence, new human resources are supported to repeatedly trial and adjust curriculum content, teaching strategies, and ways of using materials in real teaching contexts, thereby effectively transforming intervention ideas into teaching practice. Finally, a continuous professional support mechanism should be established, including expert guidance, new human resources professional learning communities, and contextualized implementation support, to strengthen new human resources’ professional identification with the intervention measures and their ability to actively implement them, promoting the high-quality and sustainable application of new curricula, teaching practices, and instructional materials in the classroom. At the same time, reflection is at the lowest level in this study, indicating that the professional development for new human resources is not perfect. Reflection is an important part of professional development. Aaron, L. (2021, p.131) believes that reflection is a tool for personal and professional development. On the one hand, the necessity of reflection lies in its ability not only to support the identification and resolution of problems but also to promote the transformation between theory and practice, thereby generating new professional knowledge. On the other hand, reflection helps individuals clearly identify areas

where further development is needed. Through reflection, new human resources can effectively transfer and apply the knowledge gained from educational courses to real-world situations, thereby continuously enhancing their professional practice level. In view of the lowest level of reflection, reflection is the most important tool of professional development. The State Council of China (2025, p.3) issued the "Outline of the Construction Plan for a Strong Education Nation (2024-2035)", which clearly proposes to improve the teacher professional development system and promote teachers' professional growth and lifelong development. The Guangxi Department of Education has also elevated the professional development of university teachers to a key position in its education strategy, integrating teacher professional development throughout the entire process of teacher training, entry, professional training, evaluation, and incentives. Due to the fact that the professional development support system has not yet been fully constructed and personal reflection awareness and strategies have not yet been fully formed, the professional development of new human resources is severely limited. To this end, it is necessary to change the current situation, optimize the reflection process for the professional development of new human resources, and serve the professional growth of the teaching workforce, especially by building a supportive reflection culture and evaluation mechanism to provide reflective assurance for professional development. This will motivate new human resources to go through the 'practice-reflection-adjustment' cycle, transforming from novice teachers into expert teachers. According to current research findings, there are some issues in the reflection on professional development of new human resources, such as insufficient problem-oriented and improvement-oriented reflection mechanisms, weak critical reflection and evidence awareness, incomplete feedback utilization and collaborative reflection mechanisms, and inadequate support for action transformation and experimental improvement. It is necessary to consider the formulation of corresponding optimization strategies, including building a problem- and improvement-oriented structured reflection mechanism, strengthening evidence-supported critical reflection training, improving

feedback utilization and collaborative reflection support mechanisms, and promoting the transformation of reflection into actions and experimental improvements.

In terms of content focus, the level is the highest. The fundamental and leading role that the content focus can play in the professional development of new human resources. The content focus can flexibly adapt to changes, innovations, and the needs and trends of new human resources, which may be due to the transformation and restructuring of the university's new human resources content focus. After the transformation and upgrading of the new human resources major in the universities, the content center will become clearer, more concise, and aligned with its needs. The content focus has features related to higher engagement, which can better enhance professional development. Enhancing engagement is related to the study by Richter, E., Kunter, M., Marx, A., & Richter, D. (2021, p.6), which suggests that compared to less capable teachers, those with higher professional competence tend to devote more time to subject content-focused professional development. The new human resources content focus at Guangxi Border Universities has a clear structure, capable of building a systematic, logical, and ecological content system that effectively enhances professional development planning. By discussing issues, sharing information and experience through the ability to implement and evaluate teaching activities, exploring opportunities for cooperation in diverse knowledge and experience, and enhancing the professional quality of their professional community, this is consistent with the research results of Tanang, H. (2021, p.34). At the same time, new human resources must fully understand the content focus to anticipate students' cognitive misconceptions and apply diverse teaching strategies to guide learning, achieving mutual growth in teaching and learning. Scholars believe that factors such as the professional development stage of teachers, the complexity of real teaching needs, subject characteristics, and curriculum content, the design orientation of professional development programs, the disciplinary understanding and professional guidance capabilities of managers and trainers, the teaching culture and teaching evaluation orientation of schools, the workload of teachers in teaching, scientific research, and administrative work, and the adequacy of teaching resources

and subject support conditions are all factors that influence content focus. Guangxi Border Universities have overcome these problems. Therefore, the content focus of the new human resources at Guangxi Border Universities is relatively high.

In terms of active learning, the level of it was followed by content focus. The study shows that the active learning of new human resources in border universities in Guangxi is at a high level. Considering the results of this study, the range of various aspects from the highest to the lowest level is as follows: The highest level is "Administrators develop a 'research-practice' mechanism for new human resources to actively improve their ability of educational", followed by "Administrators motivate new human resources to actively participate in interdisciplinary educational activities". "Administrators motivate new human resources to proactively actively in the 'Plan-Act-Observe-Reflect' cycle" is the lowest level. Related to Soto, R. C., & Marzocchi, A. S. (2021, p.278), the professional development practice of building confidence and motivation involves recognizing that faculty must want to learn and must believe they can learn. Active learning requires an effective proactive "research-practice" mechanism, as well as the willingness and ability to learn actively, to ensure its full utilization. According to existing research, the construction of professional development models should first consider how to improve the utilization rate of new human resources' active learning. Pelletreau, K. N. (2018, p.2) believes that through immersive professional development courses in science teaching, active learning, assessment, and inclusive teaching, teachers' use of active learning in the classroom has increased, and they will also share academic achievements resulting from their training experiences and publish papers on teaching practice research. Enhancing teachers' professional skills, related to the research by Zawilinski, L., Shattuck, J., & Hansen, D. (2020, p.11), who argue that promoting active learning in flipped classrooms from a teacher's perspective through professional development yields significant outcomes, not only cultivating a more reflective teaching staff but also promoting the widespread adoption of active learning strategies and driving innovative applications of teaching technology. Meanwhile, as we have found, designing flexible classrooms suitable for

active learning and group collaboration will greatly assist teachers in their teaching practices. New human resources need to actively learn and self-regulate learning skills to support active learning methods, thereby achieving professional competence. As stated by Virtanen, P., Niemi, H., & Nevgi, A. (2017, p.12), active learning and self-regulated learning (SRL) skills play a role in pre-service teachers' (teacher education students') engagement in lifelong professional development. They should be encouraged and guided to master the most challenging professional competencies through active learning and self-regulated learning skills. Only teachers who possess active learning and self-regulation abilities themselves can effectively guide students to achieve active learning and self-regulation, and master the ability to design learning environments using active learning and self-regulation support methods.

In terms of collaboration, it was at a high level. The study found that the collaboration of new human resources is at a high level. Considering the results of this study, the scope includes, from highest to lowest level, as follows: The highest level is "Administrators guide new human resources to experience the multi-dimensional interactive value". followed by "Administrators help new human resources achieve interdisciplinary or cross-departmental collaboration". "Administrators adjust the team collaboration model for new human resources to strengthen team collaboration skills" is the lowest level. This indicates that Guangxi border universities have fostered a relatively positive atmosphere in promoting the integration of new human resources into organizations and their participation in collaboration. By organizing diverse team interactions and collaborative activities, as well as practicing collaborative problem-solving methodologies, teachers can quickly perceive the value of collaboration for personal growth and team operation, promoting joint planning and reflection within the teacher team, which is consistent with the research findings of Díaz-Sacco, A., & Muñoz-Salinas, Y. (2024, p.4). Bergmark, U. (2023, p.221) argues that teacher professional development programs should be based on practical problems raised by teachers, their involvement in the research process, and their sense of belonging to the teacher community. This indicates that

teachers will treat positive experiences and challenges as community professional learning and development. When they negotiate with researchers and adjust the process according to needs, community members not only invest a lot of time and effort, but also further strengthen collaborative relationships and team cohesion through in-depth discussions of successful experiences and challenging issues in teaching practice. This significantly enhances teachers' resilience and allows professional learning to develop gradually. To enhance the creation of a professional development environment, Admiraal, W. (2021, p.684) believes that building a professional learning community and organizing both formal and informal collaborative work and learning activities among teacher teams will have more remarkable sustainability when such interventions are more deeply embedded in the school's organizational structure and culture.

In terms of duration, the level was followed by collaboration. The study found that the duration of new human resources is at a high level. Considering the results of this study, the spectrum of aspects from the highest to the lowest level is as follows: The highest level is "Administrators develop systematic and sustainable professional development plans for new human resources". followed by "Administrators regularly check the progress of new human resources' professional development and build feedback mechanisms". "Administrators motivate new human resources to continuously improve and provide feedback and suggestions" is the lowest level. This indicates that Guangxi Border Universities has placed considerable emphasis on the long-term and continuous development of the new human resources major, but it also exhibits characteristics of 'strong planning, weak follow-up in the process, and insufficient motivation and feedback.' Li, N. (2021, p.1) proposed a professional development model of workshops-seminars-demonstrations by shortening the contact duration, extending the total duration span, and integrating elements such as active learning and expert follow-up to effectively address duration issues, thereby enhancing teachers' professional practical teaching abilities. Currently, the time teachers invest in their own development is clearly insufficient to support their professional development, which is consistent with the research findings of

Ilgan, A., & Basaran, Y. (2023, p.112). This is the reason why the duration of emerging human resources in Guangxi border universities is at a medium level. Ilgan, A., & Basaran, Y. (2023, p.113) found that over 95% of teachers spent less than 10 hours in the previous academic year on activities such as professional development support for new teachers, professional development activities among colleagues, and parent-teacher meetings. Lindvall, J. (2025, p.489) found results differing from previous studies, indicating that teaching quality did not improve during the process of professional development. This may clarify the importance of the duration of professional development for its effectiveness, as well as how the duration effect is mediated by other characteristics of professional development. In summary, the emerging human resources of Guangxi Border Universities can promote their professional development by providing detailed teaching cases spanning several weeks, thereby normalizing the implementation of prescribed activities into new habits and ensuring sufficient duration for professional development.

In terms of reflection, it was the lowest level. The study found that the reflection of new human resources is at the lowest level among of all five dimensions. Considering the results of this study, the scope includes from highest to lowest level as follows: The highest level is “Administrators motivate new human resources to carry out targeted reflection around core issues,” which is problem-oriented, motivating targeted professional development through problem-solving. The new human resources at Guangxi Border Universities have critical awareness and thinking, and the handling of issues is scientific and effective, which is 'managers can guide new teachers to dare to question and objectively test their rationality'. The new human resources of Guangxi Border Universities have a strong sense of reflection, which helps to enhance professional development, but 'collecting evidence and conducting key attribution reasoning' is at the lowest level. This indicates that the reflective development of emerging human resources at Guangxi Border Universities exhibits the characteristic of 'awareness leading, ability lagging.' Although new employees possess a strong reflective willingness and critical awareness, a high-quality reflective mechanism based on evidence and supported by

reasoning has not yet been formed with managerial support. A deep understanding of the challenges faced by the new human resources is the key first step in building a new human resources onboarding training program, so that it can truly meet the actual needs of their service recipients, which is consistent with the research findings of Stewart, T. T., & Jansky, T. A. (2022, p.1). To clarify the direction of development for the new human resources major at Guangxi Border Universities, clear guidance on reflective practice should be provided in the professional development project. Tlali, T., & Lefoka, P. (2023, p.1-12) show that writing teaching practice summaries in reflective practice can indeed stimulate reflective practice and metacognition, prompting teachers to rethink and adjust their teaching methods. Therefore, with a problem-oriented approach, the new human resources should place greater emphasis on the level of teaching practice, focusing their reflection on teaching implementation methods, teaching effectiveness, and teaching outcomes. It is essential to strengthen evidence collection, attribution analysis, and methodological training in order to enhance the practical effectiveness of reflection in professional development, which is consistent with the findings of Lefebvre, J. (2022, p.10).

In summary, the development of the new human resources major exhibits a structural characteristic of "prominent strengths and obvious weaknesses" across five dimensions. Firstly, the content focus level is the highest, with a clear content system and definite goals, which can better align with the teaching practice and development needs of the new human resources, playing a core role in guiding the professional development direction, enhancing participation, and teaching quality. Secondly, the dimension of active learning and collaboration shows good overall performance. Managers have initially created a supportive and cooperative professional learning atmosphere by promoting the "research-practice" mechanism, interdisciplinary communication, and multi-dimensional interaction. However, there is still room for further improvement in promoting in-depth active learning and optimizing team collaboration models. Thirdly, the duration is at a medium level, characterized by relatively sound development plans, but insufficient process follow-up and incentive feedback, and limited time investment in professional

development, which affects the accumulation of long-term effectiveness. Finally, reflection has the lowest score. Although new teachers have a certain awareness of problems and a critical attitude, they lack the ability to provide evidence, conduct attribution analysis, and transform reflection results into teaching actions. Reflection has not yet formed a closed-loop mechanism. Based on this, it is recommended to further strengthen evidence-based reflection training on the basis of consolidating the advantages of content focus, and build an institutionalized path of "practice-reflection-improvement". At the same time, by improving process feedback and incentive mechanisms, extending the professional development cycle, and promoting the coordinated development of active learning, collaboration, and reflection, thereby overall improving the quality of professional development of the new human resources.

Part 2: the professional development enhancement model for new human resources.

The proposed professional development enhancement model for new human resources comprises five dimensions and includes a total of 46 measures. Specifically, 9 measures focus on active learning, 9 address collaboration, 9 concern duration, 10 emphasize content focus, and 9 are devoted to reflection.

Enhancing active learning consisted of 9 measures. Of the nine measures designed to promote active learning, the key measures are presented below: the third measure, the eighth measure, and the ninth measure. The proposed measures were synthesized from the recommendations provided by the respondents and were supported by findings reported in previous studies. Keuvelaar-van den Bergh (2013, p. 65) developed a professional development program designed to enhance feedback in active learning. The program emphasized establishing appropriate conditions for active learning, defining explicit learning objectives, directing feedback toward students' metacognitive development and social learning skills, and adopting a facilitative approach to feedback delivery. These elements are reflected in Measures 1, 3, 6, and 8. Drawing on exemplary practices for promoting active learning in

teaching, Soto and Marzocchi (2021, p. 275–279) proposed a practical framework for teacher professional development that incorporates faculty community building, sufficient implementation time, feedback loops, collaborative spaces, persistence in improving practice, confidence and motivation development, external support, and diversified professional development formats. These practices correspond to Measures 2, 3, 5, 6, 7, 8, and 9. Pelletreau (2018, p. 9–10), based on an examination of active learning practices, identified several guiding principles, including adopting a data-driven iterative approach, assigning a knowledgeable facilitator, reducing risks while maximizing benefits for faculty, and recognizing that moderate variation in teaching practices is acceptable. These principles are consistent with Measures 1, 3, 5, 6, 8, and 9. Furthermore, Admiraal (2021, p. 694) proposed five intervention areas for promoting teacher professional development within the framework of the “school as a professional learning community,” namely a shared school vision of learning, professional learning opportunities for all staff, collaborative work and learning, organizational change, and learning-oriented leadership. These intervention areas are reflected in Measures 1, 2, 3, 4, 5, 7, 8, and 9. Finally, Bergmark (2023, p. 222), through action research on the establishment of a research-based educational system, demonstrated that effective professional development depends substantially on teacher agency and identified human, scientific, practical, and organizational resources as important conditions for supporting teacher professional learning. These findings correspond to Measures 1, 2, 4, 5, 6, 7, and 9.

Strengthening collaboration consisted of 9 measures. Of the nine measures aimed at strengthening collaboration, the key measures are presented below: the fourth measure and the seventh measure. The measures were developed by synthesizing the recommendations of the respondents and comparing them with relevant findings from previous research. Burbank (2003, p. 513) found that effective teamwork depends largely on shared project objectives among team members, organizational opportunities for team-based work, and similarities in participants’ developmental needs. This finding is reflected in Measures 1, 2, 3, 4, 5, 6, 7, and 8. In examining collaborative design as a form of professional development during

curriculum reform, Voogt (2015, p. 279) identified situatedness, agency, and the cyclical relationship between learning and change as important characteristics of learning within collaborative design processes. These findings correspond to Measures 1, 4, 6, 7, and 9. Diaz-Sacco (2024, p. 9), in exploring the conditions and opportunities for strengthening teacher collaboration during the implementation of professional development programs, highlighted three major areas: the organizational potential of redefining the division of labor, the important function of artifacts in the innovation process, and the emerging role of co-teaching in promoting collaboration. These areas are reflected in Measures 3, 4, 5, 7, and 8. Furthermore, Bergmark (2023, p. 222) demonstrated through action research on research-based education that effective professional development is strongly associated with teacher agency, while human, scientific, practical, and organizational resources serve as important conditions for teacher professional learning. This finding is consistent with Measures 1, 2, 4, 5, 7, and 8. Similarly, Admiraal (2021, p. 694) proposed five intervention areas for advancing teacher professional development within the framework of the “school as a professional learning community”: a shared school vision of learning, professional learning opportunities for all staff, collaborative work and learning, organizational change, and learning leadership. These intervention areas correspond to Measures 1, 2, 3, 4, 5, 7, 8, and 9.

Optimizing duration consisted of 9 measures. Of the nine measures intended to optimize the duration of professional development, the key measures are outlined below: the second measure, the third measure, and the fifth measure. The measures were formulated by synthesizing the recommendations from respondents and examining their consistency with relevant findings from previous research. Tanang (2021, p.3) emphasized that professional development activities and in-service training should provide targeted support in pedagogy, subject matter knowledge, and classroom management based on teachers’ existing needs. The study also highlighted the importance of continuous exchange of ideas, professional guidance and support among teachers, school leadership support, and adequate time for participation in training and workshops. These findings are reflected in

Measures 2, 3, 7, and 8. Fairman (2022, p. 11) suggested that universities can support professional development by establishing a clear PD vision, evaluating programs and resources for quality assurance, developing and maintaining online platforms, and providing guidance that enables schools and educators to use technology effectively for PD. Such efforts can also strengthen the alignment between broader educational objectives and school improvement initiatives. These findings correspond to Measures 1, 2, 3, and 7. It is evident that efforts regarding higher-quality online education demonstrate the clear need to focus on the changing roles, competencies, and additional skillsets of prospective online instructors. They face unique challenges that should be tackled through efficient PD programmes, in-service training opportunities, additional courses within pre-service teacher training, and graduate degree programmes (Adnan, M., 2018, p.20). These findings are reflected in Measures 1, 2, 3, 4, and 7. Fairman (2023, p. 207) identified several high-impact strategies for promoting professional development, including establishing a clear and consistent vision and improvement goals, aligning PD activities with school improvement priorities, allocating time for professional development during the school day, mobilizing expertise from school personnel and external partners to provide teachers with learning support and guidance, and actively participating with teachers in professional learning activities. These strategies correspond to Measures 1, 2, 3, 6, and 7. To ensure a coherent system that supports teachers across the entire professional continuum, professional learning should link to their experiences in preparation and induction, as well as to teaching standards and evaluation. It should also bridge to leadership opportunities to ensure a comprehensive system focused on the growth and development of teachers. Policymakers and administrators could evaluate and redesign the use of time and school schedules to increase opportunities for professional learning and collaboration, including participation in professional learning communities, peer coaching, and observations across classrooms, and collaborative planning. (Darling-Hammond, L., 2017, p.24). These findings are reflected in measures 1, 2, 3, 5, and 7.

Enhancing content focus consisted of 10 measures. Of the ten measures designed to strengthen content focus, Measures 3, 4, and 6 were identified as particularly important. The measures were developed by synthesizing the recommendations of the respondents and examining relevant evidence from previous research. Vavasseur (2008, p.532) found that effective professional development benefits from organizing teachers into teams, emphasizing instructional content rather than software, responding flexibly to teachers' needs, and providing classroom-based examples. These findings are reflected in Measures 1, 3, 4, 6, and 8. Desimone (2006, p.179) identified several approaches for administrators, including supporting teachers in undertaking challenging professional development through appropriate scaffolding and activities matched to their expertise, connecting professional development activities with the school vision, and encouraging participation in high-quality professional development. These approaches correspond to Measures 1, 3, 6, and 9. From a theoretical perspective, Lindvall (2018, p.125) noted that the content of professional development primarily addresses teacher knowledge and practice. Teacher practice encompasses areas such as teacher actions, curriculum design, self-directed learning, and reflective practice. These areas are consistent with Measures 3, 4, 5, 6, and 10. Darling-Hammond (2017, p.7) emphasized that context-specific, job-embedded, and content-focused professional learning is particularly valuable for responding to the diverse needs of students and teachers across different educational settings. This perspective is reflected in Measures 1, 2, 3, 4, and 6. Gibbons and Cobb (2017, p.421) identified six practical activities through which teachers can engage with core subject concepts and examine practices that contribute to professional development: subject-matter teaching demonstrations, student work analysis, classroom video analysis, curriculum inquiry, collaborative teaching demonstrations, and teaching demonstration sessions. These activities correspond to Measures 1, 4, 5, and 6. In addition, the Technological Pedagogical Content Knowledge framework supports educators' development of subject matter knowledge by integrating pedagogical approaches with appropriate technological tools. Mahlo and Waghid (2025, p.7) described seven knowledge

domains within the framework: Technological Knowledge, Pedagogical Knowledge, Content Knowledge, Technological Pedagogical Knowledge, Technological Content Knowledge, Pedagogical Content Knowledge, and Technological Pedagogical Content Knowledge. This framework is reflected in measures 3, 4, 5, and 7.

Strengthening reflection consisted of 9 measures. Of the nine measures aimed at strengthening reflection, measures 3 and 6 were identified as particularly important.

The measures were developed by synthesizing the respondents' recommendations and comparing them with relevant findings from previous studies. A genuinely reflective teacher is expected to take an active role in constructing knowledge through sustained engagement in reflective practices, which include: conducting action research projects, writing teaching logs, recording classroom live videos or audio, observing peer teaching, exchanging with teacher teams, establishing teaching archives, and using other methods and activities described. The shared contribution of these approaches is to offer teachers sustained support and diverse opportunities to engage in teaching reflection (Farrell, T. S., 2007, p.187). These findings are reflected in Measures 2, 3, 5, 6, and 9. A concept of reflection that does justice to the specificity of the teaching profession does not only need to be broad or wide in its content, but also deep enough. By this depth, I mean that it should move beyond the level of action to the level of underlying beliefs, ideas, knowledge, and goals – in other words, to the personal interpretative framework with its self-understanding and subjective educational theory (Beauchamp, C., 2015, p.133). These findings are reflected in Measures 3, 4, 5, 6, and 9. These statements are often transformed into a “Portfolio of Active Reflection”, which includes their experience of various modules, their current and past activities, and their future plans. By deliberately transforming spontaneous reflection into a structured process, its effectiveness can be enhanced, thereby fostering greater reflective awareness and self-understanding. Reflection as a development tool. Whilst reflective practice can be a solitary pastime, peers have a definite role to play in helping and supporting each other. (Helyer, R., 2015, p.18-23). The findings are consistent with Measures 3, 6,

and 9. The guidelines for introducing and fostering teachers' reflection. Firstly, we need to consider the influence of the contextual factors, such as organisational culture, educational programme, assessment issues, etc. Secondly, we encourage reflective practice when we consider individual characteristics of teachers (motivation for reflection, critical thinking skills, etc.), and we should not undermine the motives that are beneficial for critical reflection: curiosity, willingness to wonder, open-mindedness, and desire for growth. Thirdly, it is important to differentiate between constructive and nonconstructive self-focused thought. Lastly, being attentive to the emotional dimension of reflective practice to follow the abovementioned motives to explore the complexities of their own teaching practice (Saric, M., & Steh, B., 2017, p.81). The findings support measures 2, 3, 4, 5, and 6. According to Stewart and Jansky (2022, p.8), novice teachers can better manage challenges in their professional development when a cyclical process of observation, acceptance, analysis, and reflection is incorporated into their practice. This process encourages teachers to explore effective and innovative approaches while following ten structured reflection steps. The proposed process is closely aligned with Measures 3, 5, and 6.

Part 3: The suitability and feasibility of the professional development enhancement model for new human resources.

Nine experts were invited to assess the professional development enhancement model for new human resources. These experts possessed substantial knowledge and experience in human resource professional development and related research. Following the interpretation criteria proposed by Likert (1932), the mean scores indicated that the suitability and feasibility of the strategies across the five dimensions were rated at the highest level, with scores ranging from 4.00 to 5.00. This result demonstrates that the proposed professional development enhancement model was considered both suitable and feasible.

The Model of Enhancing Active Learning for enhancing professional development for new human resources are suitability and feasible. The high ratings may be explained by the model being developed on the basis of survey and

interview findings and assessed through mean scores and standard deviations. The evaluation results demonstrated the highest levels of suitability and feasibility. In particular, Measure 1 achieved the highest rating for both the suitability and feasibility of enhancing active learning.

This is because the teaching, research, and service issues faced by university teachers in the China-Vietnam border region are highly contextualized. Directly embedding regional development needs into professional development goals allows for precise alignment with real-world work tasks, significantly stimulating the proactive learning motivation of new teachers. Furthermore, Guangxi, as an important hub facing ASEAN countries, possesses mature policy support and practical platforms, making this strategy realistically feasible in terms of institutional conditions and implementation pathways. Limited resources represented the primary challenge to the effective implementation of professional development. Enhancing Active Learning for enhancing professional development uses authentic artifacts, interactive activities, and other strategies to provide deeply embedded, highly contextualized professional learning (Darling-Hammond, L, 2017, p.5). According to Pang and Wang (2016, p.198), educators and policymakers should give greater attention to the quality and authenticity of teachers' engagement in school-based PLCs instead of simply seeking to increase how frequently teachers participate. Because participation is influenced by institutionalized school practices and external policy requirements, providing favorable working conditions may offer a more effective means of supporting school-based PLC development. At the same time, this issue presents a methodological challenge when teachers' practices are investigated across national and cultural settings. Fu (2024, p.331) established a framework to examine teacher training needs and their influencing factors. The findings indicated that teachers in border regions require support in terms of training modalities, content, intensity, access to opportunities, and practical applicability. The model analysis further suggested several approaches for improving teacher development, including the provision of dedicated mental health education and counseling, the implementation of school-based development programs that foster professional learning

communities, and the development of specialized training initiatives aimed at increasing the international visibility of border education and enhancing teachers' professional identity and sense of accomplishment.

The Model of Strengthening Collaboration for enhancing professional development for new human resources are suitability and feasible. This is because the model was summarized from the current surveys and interviews and analyzed using the mean and standard deviation, which showed the highest level of suitability and feasibility. Of these, the highest scores for the suitability of the model for strengthening collaboration are for the first measure, and the highest scores for the feasibility of strengthening collaboration are for the first measure.

This is because integrating professional development goals with team collaboration goals under the guidance of the school's development vision can provide a clear and stable common direction for teacher collaboration, enhancing members' sense of value and action consistency. This strategy aligns with the practical logic of universities' organizational operations and can reduce collaboration costs and boost participation motivation through goal alignment. Due to its clear direction and well-defined implementation path, it demonstrates the highest applicability and feasibility in collaborative variable research. It is emphasised that opportunities for action have to be created, collaboration has to be established as one way and goal of school development that not only benefits the teachers, but also enhances the school as a whole, while teachers, at the same time, have room for their own development. Furthermore, the same is valid for steps towards embedding collaboration into schools (Huber, 2004, p.680). High-quality professional development creates space for teachers to share ideas and collaborate in their learning, often in job-embedded contexts. By working collaboratively, teachers can create communities that positively change the culture and instruction of their entire grade level, department, school, and district (Darling-Hammond, L, 2017, p.5). Employing a high-intensity, co-constructed collaborative model, collaboration-orientation can serve as an organic component in the school's development process. If migration and heterogeneity are, for example, important and urgent topics in one

particular school, collaboration goals can be adjusted based on those (Muckenthaler, M., 2020, p.17). According to De Jong (2022, p.12), future research on teacher collaboration needs to describe the research context in greater detail so that findings can be interpreted appropriately. School leaders and facilitators of collaborative learning should examine their schools' existing circumstances before implementing new collaboration approaches or systems. This requires collaborative practices to take into account both contextual factors, including administrative support and school priorities, and individual teacher characteristics, such as professional knowledge and personal beliefs.

The Model of Optimizing Duration for enhancing professional development for new human resources are suitability and feasible. This is because the model was summarized from the current surveys and interviews and analyzed using the mean and standard deviation, which showed the highest level of suitability and feasibility. Of these, the highest scores for the suitability of the model for optimizing duration are the first measure and the seventh measure, and the highest scores for the feasibility of optimizing duration are the first measure.

This is because the two strategies highly align with the objective laws of teacher professional development. The progressive professional development timeframe conforms to the lifecycle characteristics of teachers, from onboarding and adaptation, capacity accumulation, to stable development, effectively reducing short-term pressure and enhancing the continuity and predictability of time investment. The mentoring system and teamwork mechanism, through experience transfer and resource sharing, significantly shorten the time required for experimentation and routine repetitive work, and accelerate organizational integration. Both stabilize the time rhythm and improve the efficiency of time usage, therefore possessing strong promotional value in different Universities contexts. A well-integrated professional learning system should accompany teachers throughout their careers by connecting professional learning with initial preparation, induction experiences, teaching standards, and evaluation. In addition, opportunities for leadership development should be incorporated into the system so that teacher

learning and career advancement can be supported within a unified framework (Darling-Hammond, L., 2017, p.24). Mentoring is helping, guiding, assisting, and coaching novice teachers by experienced ones. Mentoring guides, coaches, and helps beginners with their performance in the classroom and helps them to manage their school time management and economic management with better preparation of their lessons. In the teaching profession, mentoring is a process in which a more experienced senior teacher (a mentor) supports and assists the novice teachers (a mentee) by providing required guidance, counseling, ideas, and information on carrying out the professional responsibilities successfully (Pandey, S. R., & Sharma, M. R., 2022, p.169-177). According to Gandhi and Johnson (2016, p.301), mentors should demonstrate competence in six areas: communicating effectively, establishing shared expectations, checking mentees' understanding, encouraging autonomy, responding to diversity, and facilitating professional growth. Deng, C., & Turner, N. (2024, p.598) analysis of existing quantitative research revealed five categories of mentor characteristics that contribute to enhanced mentoring outcomes: competency in contextually relevant KSAs, commitment and initiative, excellent interpersonal skills such as communication and relationship-building abilities, a pro-social orientation, and a learning goal orientation. Socialization, job competencies, clarification of roles, future career prospects, satisfaction, and understanding of organisational culture can be enhanced through mentoring. Make a case for a formal mentoring scheme, centrally organised, with 'written rules and prescriptions, formal training and monitoring ... on the grounds of consistency and equity (Massner, C. K., Epling, L., & Cade, N., 2025, p.171).

The Model of Enhancing Content Focus for enhancing professional development for new human resources are suitability and feasible. This is because the model was summarized from the current surveys and interviews and analyzed using the mean and standard deviation, which showed the highest level of suitability and feasibility. Of these, the highest scores for the suitability of the model for enhancing content focus are the first measure and the ninth measure, and the highest scores for the feasibility of enhancing content focus are the first measure.

This is because the focus on the mission of the school and the development needs of the border areas in Guangxi provides clear, stable, and long-term strategic coordinates for the new human resource content focus, ensuring that individual teaching and research efforts consistently serve the core objectives of the school and regional development. Aligning evaluation and incentive mechanisms with content goals directly links what the new human resources 'do and continue to do' with institutional returns, significantly enhancing the operationality and sustainability of the content focus. Together, they form a closed-loop mechanism of 'strategic leadership—behavioral constraint—feedback regulation,' ensuring that the content focus is both directionally secured and institutionally supported, thus demonstrating the highest applicability and feasibility in the research on content focus variables. A coherent professional development system should reflect the priorities established at both the school and district levels, enabling teachers to pursue shared goals instead of facing competing or inconsistent expectations (Darling-Hammond, L., 2017, p.6). Implementing efficient faculty development programmes may present problems, but institutional dedication and leadership are essential to overcoming them. Higher education institutions can position themselves as leaders in the constantly changing educational landscape by creating a welcoming climate that appreciates faculty advancement and supports development initiatives (Kasule, G. W., & Bisaso, R., 2019, p.8). A structured feedback system should be established to ensure that faculty perspectives on their experiences, professional needs, and areas for improvement are regularly incorporated into institutional decision-making. Implementing the eight recommendations would provide faculty with greater support and opportunities to participate in achieving institutional objectives. Such an approach could contribute to stronger program quality, improved student achievement, and the continued development of the institution and the broader education sector (Bueno, D. C., 2023, p.11). Through constructing the incentive structure equation model, analyzes and summarizes the influence factors of the incentive of teachers in universities and colleges from two aspects: internal incentive and external incentive, and finds that external incentive is divided into salary and

welfare, organizational environment, career development, and internal incentive is divided into work achievement, individual value, as well as innovation incentive (Hao, D., 2023, p.1). A shift toward technology-enhanced evaluation, integrating AI-driven analytics and real-time feedback. The analysis identified five dominant research clusters: technology-driven evaluation systems, competency-based faculty evaluation, policy frameworks, faculty evaluation in education, and post-pandemic teaching evaluation (Hussain, N. A. S., 2025, p.283).

The Model of Strengthening Reflection for enhancing professional development for new human resources are suitability and feasible. This is because the model was summarized from the current surveys and interviews and analyzed using the mean and standard deviation, which showed the highest level of suitability and feasibility. Of these, the highest scores for the suitability of the model for strengthening reflection are the ninth measure, and the highest scores for the feasibility of strengthening reflection are the ninth measure.

This is because using excellent external practices as a benchmark helps provide a verifiable and comparable reference system for evidence-based reflection, enhancing the scientific rigor and effectiveness of reflective judgment. Combining reflection with the development positioning of the China-Vietnam border region can strengthen the alignment between strategies and real needs, making the reflection outcomes more targeted and actionable. The dual support of external benchmarking and regional orientation helps in building stable and sustainable improvement pathways, making it the most applicable and feasible in the new human resources reflection management at the Guangxi Border Universities. In effective professional development programs, the practices of generating feedback and supporting reflection often include opportunities to share both positive and constructive reactions to authentic instances of teacher practice, such as lesson plans, demonstration lessons, or videos of instruction (Darling-Hammond, L, 2017, p.15). In improving human resources starting from education, training and guidance for human resources in industry 4.0, the basic capital of human resources that must be owned are: skills, agility and culture, with different cultural backgrounds can still work

together (Siswanto, D. J., 2022, p.239). Benchmarking represents an effective tool for improving the performance of higher education institutions and enhancing their competitiveness, provided it is adopted as a comprehensive and continuous methodology for learning and development, not just as a temporary comparison process. Its success requires a supportive environment, appropriate methodology, adequate resources, with consideration for the specificity of the local and cultural context (ALBayati, M. T. A., 2025, p.148). To achieve high-quality development of human resources, needs to make efforts in five aspects: strengthening the development and utilization of human resources, improving the education and training system, optimizing the mechanism for talent introduction and cultivation, enhancing international exchanges and cooperation, and increasing the flexibility of the labor market (Zhang, X., 2025, p.1).

Recommendations

Implications

The findings of the study provide the following recommendations for enhancing the professional development model for new human resources:

1. Active learning: The survey results show that the highest score was for "Administrators develop a 'research-practice' mechanism for new human resources to actively improve their educational ability," and the lowest level was for "Administrators motivate new human resources to proactively participate in the 'Plan–Act–Observe–Reflect' cycle". This indicates that professional development for new human resources should continue to be pushed to ensure that active learning promotes professional development through iterative optimization. Firstly, university leaders should strengthen strategic leadership and institutional support by incorporating border education, regional development, cross-cultural communication, and national border strategies into professional development planning. They should allocate sufficient resources for training, research, practical platforms, and inter-university collaboration, while establishing evaluation and incentive mechanisms that recognize teaching practice, educational innovation, regional service, and professional

growth. Secondly, teaching development center administrators should establish a sustainable professional development support system. Professional development programs should be aligned with the needs of border education, cross-cultural communication, regional governance, and educational innovation through targeted training, case-based learning, practical projects, and specialized professional development activities. Administrators should also strengthen the research–practice mechanism by connecting research with teaching practice and providing authentic learning opportunities through university–community, university–enterprise, inter-university, and cross-border collaboration. Furthermore, the Plan–Act–Observe–Reflect cycle should be embedded into routine professional development through teaching logs, case analysis, peer feedback, and teaching micro-experiments, enabling active learning to become a continuous rather than one-time process. Thirdly, new human resources should strengthen their professional agency through active learning, practice-based application, and reflective improvement. They should proactively establish professional learning goals based on their teaching, research, and regional service needs and actively participate in interdisciplinary learning and professional development activities. Through the research–practice and Plan–Act–Observe–Reflect cycles, they should continuously test, evaluate, and refine their professional practices. Evidence-based reflection should be strengthened through teaching data, case analysis, peer feedback, and micro-experiments, enabling new human resources to identify problems, develop improvement strategies, and progressively transform from passive participants to active professional learners and from experience-based practice to evidence-based improvement.

2. Collaboration: The survey results show that the highest score was for “Administrators guide new human resources to experience the multi-dimensional interactive value”, and the lowest score was for “Administrators adjust the team collaboration model for new human resources to strengthen team collaboration skills”. This indicates that professional development for new human resources collaboration administrators should systematically integrate professional development goals with team collaboration goals under the guidance of the school's

development vision to promote the coordinated development of new human resources and the team. Firstly, university leaders should strengthen strategic alignment by translating the university's development vision into team-level goals and connecting them with individual professional development objectives, thereby establishing a clear "School Vision–Team Goals–Professional Development" framework. They should also provide sufficient time, funding, and resources for interdisciplinary, cross-departmental, and inter-university collaboration and incorporate collaborative achievements into performance evaluation, promotion, and professional development systems. Furthermore, cross-team and interdisciplinary collaboration mechanisms should be established to facilitate knowledge sharing, joint projects, and the dissemination of successful practices. Secondly, teaching development center administrators should optimize collaborative structures and professional learning support. They should establish professional learning communities, mentorship programs, and knowledge-sharing platforms to facilitate continuous peer learning and experience exchange. Collaboration models should be flexibly adjusted according to team characteristics and professional development needs, with greater emphasis on interdisciplinary, cross-departmental, university–community, and university–industry collaboration. Continuous feedback and improvement mechanisms should also be established through regular evaluations, case sharing, and cross-team learning to identify collaboration challenges and optimize collaborative relationships. Thirdly, new human resources should strengthen their collaborative awareness, knowledge sharing, and collaborative innovation. They should align their individual professional development goals with team objectives, actively participate in peer learning and interdisciplinary communication, and share teaching experiences, research findings, and practical cases. Through active participation in team discussions and collaborative projects, they can learn from diverse professional perspectives and continuously refine their practices based on feedback. In this way, professional development can progress from individual learning to team collaboration and ultimately to shared professional growth.

3. Duration: The survey results show that the highest score was for “Administrators develop systematic and sustainable professional development plans for new human resources”, and the lowest score was for “Administrators motivate new human resources to continuously improve and provide feedback and suggestions”. This indicates that professional development for new human resources should strengthen the establishment of a progressive professional development time frame, implement a mentorship system and team collaboration mechanisms, clarify the duration goals and task progress for each professional development stage, and enhance organizational integration, information sharing, and feedback optimization. Firstly, university leaders should establish a phased professional development framework based on “Onboarding–Accumulation–Stabilization.” Clear time allocations, developmental objectives, and stage-specific tasks should be established for each phase. During onboarding, unnecessary workloads should be reduced and sufficient adaptation time and mentoring support should be provided. During accumulation, protected time should be allocated for teaching, research, and professional learning, while the stabilization stage should provide long-term time support for research, teaching innovation, and regional service. Professional development time should also be incorporated into annual planning, performance management, and incentive systems to ensure continuity and sustainability. Secondly, teaching development center administrators should strengthen process monitoring, mentoring support, and feedback mechanisms. Stage-specific professional development tasks should be established and monitored through regular progress reviews, development records, and periodic evaluations. Mentorship and team collaboration mechanisms should be strengthened to provide differentiated support according to the developmental needs of new human resources and to help them effectively balance teaching, research, and professional learning. In response to the relatively low level of continuous improvement and feedback, administrators should establish regular interviews, professional growth records, peer feedback, and developmental assessments to collect suggestions and dynamically adjust professional development activities, thereby creating a continuous “Plan–

Implement–Feedback–Adjust” cycle. Thirdly, new human resources should strengthen time management, self-regulation, and continuous improvement. They should establish personal professional development goals according to the three-stage framework and effectively allocate time among teaching, research, learning, and professional practice. They should actively utilize mentoring, teamwork, and professional learning platforms to accumulate knowledge and skills while adjusting their time investment according to changing developmental needs. They should also document their professional growth, regularly evaluate goal attainment, communicate challenges and needs, and adjust their development strategies based on feedback, thereby establishing a sustainable pathway of “Goal Setting–Continuous Practice–Feedback and Adjustment–Capability Accumulation.”

4. Content focus: The survey results show that the highest score was for “Administrators guide new human resources to build a systematic content system,” and the lowest score was for “Administrators motivate new human resources to regularly update teaching syllabi, integrating cutting-edge content and restructuring the content framework”. The findings imply that professional development for new human resources needs to respond to institutional needs, contribute to regional development, and remain consistent with overarching strategic priorities, adjust and restructure content and promote the dynamic optimization of professional development pathways. Firstly, university leaders should provide stronger strategic guidance and develop targeted professional development plans that connect the goals of new human resources with institutional missions and specific development needs. Key areas such as regional governance, ethnic culture, cross-cultural communication, and border-related industries should be incorporated into professional development planning to ensure that teaching, research, and community service respond to institutional and regional priorities. Adequate resources and institutional support should also be provided for curriculum reform, research projects, regional services, and university–community collaboration. Furthermore, evaluation and incentive mechanisms should recognize curriculum development, content updating, regional service, and professional achievements to

encourage sustained engagement with strategically relevant content. Secondly, teaching development center administrators should promote systematic content development, dynamic updating, and feedback-based optimization. Professional development programs should be designed around institutional priorities and regional needs through targeted training, case-based learning, project-based activities, and interdisciplinary learning. Given the relatively lower score for regularly updating teaching syllabi and integrating cutting-edge content, administrators should establish routine mechanisms for curriculum review, syllabus revision, and discussion of emerging disciplinary developments. Teaching outcomes, research results, practical feedback, and mentor recommendations should be systematically collected and used to adjust professional development content, tasks, and resource allocation, forming a continuous “Content Design–Practice–Evaluation–Adjustment” cycle. Thirdly, new human resources should strengthen knowledge construction, content updating, and practical application. They should actively integrate disciplinary knowledge, educational theories, and practical experience to develop a systematic and logically structured professional knowledge base. They should also continuously monitor disciplinary advances, educational reforms, and regional development trends and update teaching content, syllabi, and learning resources accordingly. By connecting emerging knowledge with the needs of Guangxi border areas through project-based teaching, practical research, regional services, and interdisciplinary collaboration, new human resources can continuously refine their professional practices based on student feedback, teaching outcomes, and peer evaluation, thereby establishing a sustainable pathway of “Knowledge Construction–Content Updating–Practical Application–Continuous Optimization.”

5. Reflection. The survey results show that the highest score was for “Administrators motivate new human resources to carry out targeted reflection around core issues” and the lowest score was for “Administrators guide new human resources to collect evidence and conduct critical attribution reasoning”. This finding suggests that professional development for new human resources should draw on exemplary external practices while adapting them to the region’s specific context,

with reflective activities directed toward supporting Sino-Vietnamese border development and cultivating application-oriented talent. Firstly, university leaders should strengthen strategic guidance, institutional support, and the transformation of reflective outcomes. Reflection should be aligned with the university's mission of contributing to the development of the China–Vietnam border region while developing practice-oriented professionals, encouraging new human resources to reflect on practical issues related to regional education, talent development, and community service. Appropriate evaluation, incentives, and resource support should be established, with teaching reflection, educational innovation, curriculum reform, university–industry collaboration, and regional service incorporated into professional development evaluation. Reflective cases and successful practices should also be transformed into institutional knowledge and used to inform curriculum reform, professional training, and talent development programs. Secondly, teaching development center administrators should establish evidence-based reflection and continuous improvement mechanisms. They should organize benchmarking and case studies of excellent domestic and international universities, particularly border universities, and support the localization of relevant practices. Given the relatively low score for collecting evidence and conducting critical attribution reasoning, administrators should provide systematic support for evidence-based reflection using teaching data, student feedback, classroom observations, research outcomes, and regional service results. Reflection portfolios, case databases, peer feedback, and regular evaluations should be established to continuously incorporate reflective outcomes into training programs, curriculum reform, and professional development plans, forming an “Evidence–Reflection–Improvement” cycle. Thirdly, new human resources should strengthen problem awareness, evidence collection, and critical attribution. They should actively identify key problems in teaching, research, and regional service and use authentic professional problems as starting points for reflection. They should collect evidence from classroom data, student feedback, teaching outcomes, peer evaluation, and practical cases to critically assess professional practices. By analyzing the causes and influencing factors of identified

problems, testing alternative strategies, and documenting outcomes, new human resources can establish a reflective pathway of “Problem Identification–Evidence Collection–Critical Analysis–Strategy Adjustment–Practice Verification,” thereby transforming reflection into continuous professional improvement.

Future Researches

To more effectively support the professional growth of new human resources, administrators should focus on phased time governance and institutional support, proactive contextualized learning integration, low-cost collaboration and mentorship mechanisms, dynamic alignment of talent development content with regional needs, content-oriented adjustments to evaluation and incentive mechanisms, institutionalization and organizational internalization of reflection mechanisms, and evidence-based decision-making with continuous policy optimization. According to the results of this study, duration has the lowest level of professional development for new human resources. Therefore, future research needs to pay attention to the duration of new human resources:

- 1. In terms of duration,** it is necessary to adopt a duration perspective to view professional development of new human resources as a dynamic, phased, and cumulative process. The focus should be on constructing an "onboarding-accumulation-stabilization" three-stage time investment-performance trajectory model, revealing the long-term impact of time management behaviors on teaching, research, and professional identity at different stages. On the one hand, evaluate the differentiated effects of the duration of mentoring systems and teamwork on organizational integration and professional growth, and examine the long-term time effects of institutional arrangements such as protected research and preparation time. On the other hand, integrate time management, skills accumulation, and institutional support into a dynamic growth model, providing actionable empirical evidence for Guangxi border universities to optimize phased time quotas, mentoring mechanisms, and institutional design.

2. In terms of active learning, future studies should take into account the distinctive educational context of the China–Vietnam border region, focusing on how active learning can play a role in real-world teaching, research, and regional service tasks. Research can center around key mechanisms such as contextualized task-driven learning, cyclical action-based learning, intercultural and interregional cooperation, technology-enabled development, and communities for professional learning. A systematic examination should be conducted on the long-term impact of these mechanisms on new human resource teaching improvements, research capacity building, and the formation of professional identity. At the same time, it is necessary to explore how institutional incentives, embedded evaluation, and policy support can ensure the sustainable implementation of active learning through longitudinal and mixed research methods. This will help to build an active learning model for new human resource professional development that is characterized by border features and is replicable and scalable.

3. In terms of collaboration, subsequent research should focus on uncovering the mechanisms of 'vision–collaboration–professional development,' validating low-cost collaboration models in resource-constrained contexts, assessing the guiding effect of mentorship, developing localized collaboration measurement tools, examining the amplification effects of cross-school and cross-domain collaboration networks, and conducting longitudinal tracking to test long-term impacts. To achieve the transition from research to practice, it is recommended to first pilot 'vision alignment + team collaboration + mentor engagement' action research in several universities, while simultaneously developing scales and collecting data, ensuring that academic research is linked with administrative decision-making so that evidence can be directly applied to optimizing systems and training policies.

4. In terms of content focus, future studies should focus on the content development and dynamic optimization of human resource management professional development. On one hand, guided by the mission of the universities and the development needs of the border region, research should be conducted on

local industries and regional development needs, aligning talent cultivation goals with industrial upgrading and national strategies, establishing dynamic adjustment mechanisms for professional courses and settings, and conducting curriculum needs analysis targeting border employment demands, dynamically adjusting disciplines and majors based on supply-demand matching. On the other hand, evaluation and incentive mechanisms should be aligned with content objectives, exploring the inclusion of new human resource participation in curriculum reform, learning outcomes, performance evaluations, title assessments, and scholarship selections to incentivize relevant parties to actively optimize content. Future research can also continuously improve models through methods such as case analyses, questionnaire surveys, and practice-based research, along with the establishment and assessment of content-centered evaluation and reward mechanisms and the development of career-oriented professional learning routes. Such research helps enhance the quality of talent cultivation and curriculum quality, holding significant theoretical and practical value for strengthening the border region of Guangxi through talent development.

5. In terms of reflection, future research can focus on reflecting on the role mechanism in the cultivation of application-oriented talents, exploring how it promotes the deep integration of theory and the actual needs of the Sino-Vietnamese border region through curriculum practice, teaching improvement, and faculty development. At the same time, it is necessary to systematically examine the interaction between reflection mechanisms and human resource management systems, professional learning and curriculum renewal, with the aim of advancing reflective practice from individual behavior to organizational system internalization. Furthermore, combined with excellent external practices and regional positioning, achieving the localization and transformation of advanced experience through reflection will help build a new human resource professional development path with border characteristics, providing solid theoretical support and a practical basis for enhancing the ability of Guangxi border universities to serve regional development and the quality of application-oriented talent cultivation. Therefore, reflection should

be seen as an important mechanism connecting talent cultivation, quality improvement, institutional construction, and regional service.

In summary, future research can be advanced through a dimensional gradient system progressing from foundational to in-depth stages: Firstly, managers can start from the time dimension to build a phased professional development model of "entry—accumulation—stability," thereby consolidating the institutional foundation for the sustained growth of new human resources. Secondly, managers can embed proactive learning mechanisms and collaborative mechanisms to strengthen contextualized practice, teamwork, and mentor guidance, promoting the coordinated enhancement of teaching, research, and professional identity. Thirdly, managers can focus on content alignment by dynamically matching professional development content with the industrial needs of border regions, national strategies, and the mission of universities, while improving evaluation and incentive orientation. Finally, managers can institutionalize and localize the reflection mechanism, transforming individual experience into organizational capability through internal upgrading. This multi-dimensional progressive path provides systematic theoretical support and policy guidance for optimizing the human resource cultivation system of universities in Guangxi border regions and enhancing their capacity to serve regional development.

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Appendices

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

List of Specialists and Letters of Specialists Invitation for IOC Verification

NO	Expert	Professional title	Work Place
1	Dr. Wang Fang	Professor	Baise University
2	Dr. Wang Pengfei	Professor	Guangxi Normal University for Nationalities
3	Dr. Yin Yixia	Professor	Youjiang Medical University for Nationalities
4	Dr. Liu Lilin	Associate Professor	Yulin Normal University
5	Dr. Tang Dehai	Professor	Guangxi University for Nationalities

Appendix B

Official Letter



Ref.No. MHESI 0643.14/1130

Bansomdejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

11 December 2025

RE: Invitation to validate research instrument

Dear Professor Dr. Tang Dehai

Miss Mo Xiuqing is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Professional Development Enhancement Model for New Human Resources in Border University in Guangxi"

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. Tanaput Chanchaen
(Vice Dean of Graduate School for Dean of Graduate School)

Bansomdejchaopraya Rajabhat University

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Ref.No. MHESI 0643.14/1131

Bansomdejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

11 December 2025

RE: Invitation to validate research instrument

Dear Associate Professor Dr. Liu Lilin

Miss Mo Xiuqing is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitled "Professional Development Enhancement Model for New Human Resources in Border University in Guangxi"

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. Tanaput Chanchaoen
(Vice Dean of Graduate School for Dean of Graduate School)

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Ref.No. MHESI 0643.14/1132

Bansomdejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

11 December 2025

RE: Invitation to validate research instrument

Dear Professor Dr. Yin Yixia

Miss Mo Xiuling is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Professional Development Enhancement Model for New Human Resources in Border University in Guangxi"

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. Tanaput Chanchaoen
(Vice Dean of Graduate School for Dean of Graduate School)

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Ref.No. MHESI 0643.14/1133

Bansomdejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

11 December 2025

RE: Invitation to validate research instrument

Dear Professor Dr. Wang Pengfei

Miss Mo Xiuqing is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Professional Development Enhancement Model for New Human Resources in Border University in Guangxi"

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. Tanaput Chancharoen
(Vice Dean of Graduate School for Dean of Graduate School)

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Ref.No. MHESI 0643.14/1134

Bansomdejchaopraya Rajabhat University
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11 December 2025

RE: Invitation to validate research instrument

Dear Professor Dr. Wang Fang

Miss Mo Xiuqing is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Professional Development Enhancement Model for New Human Resources in Border University in Guangxi"

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. Tanaput Chanchaen
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Ref.No. MHESI 0643.14/1135

Bansomdejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

11 December 2025

RE: Request for Data Collection and Interview

Dear Sir or Madam

Miss Mo Xiuqing is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Professional Development Enhancement Model for New Human Resources in Border University in Guangxi"

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

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

Sincerely,

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

Bansomdejchaopraya Rajabhat University
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List of Universities for Data Collection and Interview

No	University / College
1.	Baise University
2.	Guangxi Normal University for Nationalities
3.	Youjiang Medical University for Nationalities

Sincerely,



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



Ref.No. MHESI 0643.14/1121

Bansomdejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

11 December 2025

RE: Invitation to evaluate the Model

Dear Professor Dr. Zhang Fengjuan

Miss Mo Xiuqing is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Professional Development Enhancement Model for New Human Resources in Border University in Guangxi"

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.

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

Sincerely,

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

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Ref.No. MHESI 0643.14/1122

Bansomdejchaopraya Rajabhat University
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11 December 2025

RE: Invitation to evaluate the Model
Dear Associate Professor Dr. Zhang Yong

Miss Mo Xiuqing is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Professional Development Enhancement Model for New Human Resources in Border University in Guangxi"

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.

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

Sincerely,

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

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Ref.No. MHESI 0643.14/1123

Bansomdejchaopraya Rajabhat University
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Thonburi Bangkok 10600

11 December 2025

RE: Invitation to evaluate the Model

Dear Professor Dr. Tan Xuecai

Miss Mo Xiuqing is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Professional Development Enhancement Model for New Human Resources in Border University in Guangxi"

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.

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

Sincerely,

Assistant Professor Dr. Tanaput Chanchaen
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Ref.No. MHESI 0643.14/1124

Bansomdejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

11 December 2025

RE: Invitation to evaluate the Model

Dear Associate Professor Dr. Qin Shengdong

Miss Mo Xiuqing is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Professional Development Enhancement Model for New Human Resources in Border University in Guangxi"

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.

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

Sincerely,

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Ref.No. MHESI 0643.14/1125

Bansomdejchaopraya Rajabhat University
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11 December 2025

RE: Invitation to evaluate the Model

Dear Professor Peng Jinyun

Miss Mo Xiuqing is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Professional Development Enhancement Model for New Human Resources in Border University in Guangxi"

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.

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

Sincerely,

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

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Ref.No. MHESI 0643.14/1126

Bansomdejchaopraya Rajabhat University
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Thonburi Bangkok 10600

11 December 2025

RE: Invitation to evaluate the Model

Dear Professor Dr. Lu Guanming

Miss Mo Xiuqing is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Professional Development Enhancement Model for New Human Resources in Border University in Guangxi"

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.

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

Sincerely,

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

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Ref.No. MHESI 0643.14/1127

Bansomdejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

11 December 2025

RE: Invitation to evaluate the Model
Dear Professor Dr. Qi Guangzi

Miss Mo Xiuging is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Professional Development Enhancement Model for New Human Resources in Border University in Guangxi"

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.

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

Sincerely,

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

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Ref.No. MHESI 0643.14/ 1128

Bansomdejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

11 December 2025

RE: Invitation to evaluate the Model

Dear Professor Dr. Zhou Chaozheng

Miss Mo Xiuqing is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Professional Development Enhancement Model for New Human Resources in Border University in Guangxi"

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.

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

Sincerely,

Assistant Professor Dr. Tanaput Chanchaoen
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Ref.No. MHESI 0643.14/1129

Bansomdejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

11 December 2025

RE: Invitation to evaluate the Model
Dear Associate Professor Dr. Deng Lili

Miss Mo Xiuqing is a graduate student in Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. She is undertaking research entitle "Professional Development Enhancement Model for New Human Resources in Border University in Guangxi"

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.

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

Sincerely,

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

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Appendix C

Research Instrument

1. Survey Questionnaire

Title: Professional Development Enhancement Model for New Human Resources in Border Universities in Guangxi

Explanation:

1. This questionnaire is about professional development enhancement model for new human resources in border universities in Guangxi. The objectives of this research were to study the current level of professional development of new human resources in border universities in Guangxi, to develop the professional development enhancement model for new human resources in border universities in Guangxi, and to evaluate the suitability and feasibility of the professional development enhancement model for new human resources in border universities in Guangxi.

2. The questionnaire about professional development enhancement model for new human resources in border universities in Guangxi. which provided into two parts. Part 1 is personal information of respondents, Part 2 is a survey about five factors influencing professional development for new human resources in border universities in Guangxi. Each factor has 10 questions, with a total of 50 questions.

3. Please tick √ in the columns that represent your opinion about the professional development for new human resources in border universities in Guangxi.

Thank you

Miss. Mo Xiuqing

A doctoral student in the Educational Administration program

Bansomdejchaopraya Rajabhat University

Part 1: Personal information of respondents

Please tick ✓ in the columns that represent your opinion.

1. Your gender:

☐ Male ☐ Female

2. Your working experience

☐ 1-5 years

☐ 6 - 10 years

☐ 11 - 15 years

☐ 15 years and above

3. Your professional rank

☐ Associate Professor or above

☐ Lecturer

☐ Teaching Assistant

Part 2: Questions about the five factors

5 express the level of the professional development were at the highest level

4 express the level of the professional development were at high level

3 express the level of the professional development were at medium level

2 express the level of the professional development were at low level

1 express the level of the professional development were at the lowest level

The professional development for new human resources in border universities in Guangxi	Level				
	5	4	3	2	1
Active learning					
1. Administrators develop and implement task-driven adaptive professional development interventions for new human resources.					
2. Administrators develop a "research-practice" mechanism for new human resources to actively improve their ability of educational.					
3. Administrators motivate new human resources to proactively actively in the 'Plan-Act-Observe-Reflect' cycle.					
4. Administrators organize new human resources to write educational logs or cases, and actively engage in case studies.					
5. Administrators guide new human resources to actively adjust their educational strategies.					
6. Administrators guide new human resources to attribute typical events to reasoning and actively form intervention strategies.					
7. Administrators motivate new human resources to actively participate in interdisciplinary educational activities.					
8. Administrators motivate new human resources to actively carry out iterative experiments on teaching methods.					
9. Administrators motivate new human resources to actively engage in immersive professional practice.					
10. Administrators guide new human resources to actively inspire new academic thinking and research					

The professional development for new human resources in border universities in Guangxi	Level				
	5	4	3	2	1
ideas in practice.					
Collaboration					
11. Administrators establish and regularly maintain team knowledge-sharing channels.					
12. Administrators help new human resources achieve interdisciplinary or cross-departmental collaboration.					
13. Administrators clearly define the team roles for new human resources, promoting member collaboration and development.					
14. Administrators organize new human resources to flexibly adjust cooperation models and dynamically optimize team collaboration relationships.					
15. Administrators guide new human resources to establish a cooperative awareness based on the principle of reciprocity.					
16. Administrators encourage new human resources to engage in peer learning and share their experiences.					
17. Administrators guide new human resources to spark new ideas in team discussions.					
18. Administrators guide new human resources to clarify the operability of the collaborative vision.					
19. Administrators adjust the team collaboration model for new human resources to strengthen team collaboration skills.					
20. Administrators guide new human resources to experience the multi-dimensional interactive value.					
Duration					
21. Administrators develop systematic and sustainable					

The professional development for new human resources in border universities in Guangxi	Level				
	5	4	3	2	1
professional development plans for new human resources.					
22. Administrators clearly define the sustainability of the various stages of professional development goals for new human resources.					
23. Administrators regularly check the progress of new human resources' professional development and build feedback mechanisms.					
24. Administrators continuously and routinely adjust the professional development activities for new human resources.					
25. Administrators motivate new human resources to continuously participate in professional activities and constantly update their knowledge system.					
26. Administrators motivate new human resources to continuously improve and provide feedback and suggestions.					
27. Administrators motivate new human resources to transform innovative strategies into routine practices.					
28. Administrators motivate new human resources to rely on continuous practice to activate the internal motivation for professional development.					
29. Administrators build a sustainable support system to drive new human resources to transform effective practices from temporary measures into regular practices.					
30. Administrators help new human resources enhance their self-efficacy and boost their confidence in future					

The professional development for new human resources in border universities in Guangxi	Level				
	5	4	3	2	1
professional growth.					
Content focus					
31. Administrators guide new human resources to build a systematic content system.					
32. Administrators guide new human resources to reorganize content, presenting a logically coherent and hierarchically progressive content structure.					
33. Administrators motivate new human resources to continuously optimize content and activity design.					
34. Administrators guide new human resources to balance theoretical depth and practical application.					
35. Administrators guide new human resources to organically integrate educational philosophy with the value of subject content into practice.					
36. Administrators motivate new human resources to implement industry-education integration, enhancing their professional skills.					
37. Administrators motivate new human resources to simulate industry scenarios and explore the application value of the content.					
38. Administrators motivate new human resources to carry out project-based activities and implement the practical application of the content.					
39. Administrators motivate new human resources to regularly update teaching syllabi, integrating cutting-edge content and restructuring the content framework.					
40. Administrators motivate new human resources to build an ecosystem of professional development,					

The professional development for new human resources in border universities in Guangxi	Level				
	5	4	3	2	1
forming distinctive teaching styles and academic directions.					
Reflection					
41. Administrators motivate new human resources to carry out targeted reflection around core issues.					
42. Administrators motivate new human resources to identify key influencing factors and clarify improvement directions.					
43. Administrators guide new human resources to dare to question and objectively examine the rationality of their work.					
44. Administrators guide new human resources to analyze their strengths and weaknesses based on feedback.					
45. Administrators guide new human resources to use peer feedback and adjust subsequent strategies.					
46. Administrators guide new human resources to sort out successful experiences, achieving collaborative evolution of professional judgment.					
47. Administrators guide new human resources to collect evidence and conduct critical attribution reasoning.					
48. Administrators guide new human resources to analyze typical educational cases and extract reusable improvement strategies.					
49. Administrators motivate new human resources to try new methods in micro-experiments and record the results and optimization plans.					

The professional development for new human resources in border universities in Guangxi	Level				
	5	4	3	2	1
50. Administrators motivate new human resources through a "practice-reflection-adjustment" cycle, transforming them from novice teachers into expert teachers.					

2. Interview outline

Interview outline of professional development enhancement model for new human resources in border universities in Guangxi

Instructions:

The interviewees in this research are 12 high-level administrators of the teacher development center in border universities in Guangxi. The qualifications of the interviewees are as follows: 1) division-level leader, 2) at least 6 years of work experience as a high-level administrator of the teacher development center in border universities, 3) received the certificate in the field of professional development, and 4) graduated with a master's degree or above.

Part1: Respondent status (personal information)

1. Name(interviewee):
2. Position:
3. School:
4. Date of Interview:
5. Length of interview:

Part 2: Interview outline

Content	Question
Active learning	1. How to improve the management of active learning activities in the 'Plan-Act-Observe-Reflect' cycle for the new human resources program at Guangxi Border Universities? How to improve the active learning development path of the 'Plan-Act-Observe-Reflect' cycle for the new human resources of Guangxi Border Universities?
Collaboration	2. How to improve the team collaboration management of the new human resources department at Guangxi Border Universities? How to improve the development path of new human resources team collaboration at border universities in Guangxi?
Duration	3. How to improve the rectification management of new human resources duration at Guangxi border universities? How to improve the duration development path of new human resources in Guangxi Border Universities?
Content focus	4. How to improve the new human resources content focus reconstruction management of Guangxi Border Universities? How to improve the new human resources content focus development path of Guangxi Border Universities?
Reflection	5. How to improve the evidence reflection management of new human resources in border universities in Guangxi? How to improve the reflection and internalization development path of new human resources at Guangxi Border Universities?

1. In your opinion, how to improve the management of active learning activities in the 'Plan-Act-Observe-Reflect' cycle for the new human resources program at Guangxi Border Universities? How to improve the active learning development path of the 'Plan-Act-Observe-Reflect' cycle for the new human resources of Guangxi Border Universities?

Interviewee 1

The new human resources at Guangxi Border Universities face multiple roles and complex tasks. Only by setting learning goals autonomously can the needs of school development be effectively aligned with personal professional development, enhancing learning motivation and direction, avoiding passive training and fragmented learning, and promoting continuous and stable professional development through proactive learning.

We can take the following measures: 1) Guidance to clarify phased learning objectives: Through initial onboarding development diagnostics, assist new human resources personnel in breaking down teaching, research, and local service goals into actionable, short-term learning tasks. 2) Align personal learning goals with school strategy: Clarify the service area and applied development positioning of border universities, encouraging new human resources to proactively align their goals with the school's key directions when setting them. 3) Establish a mechanism for joint consultation and confirmation of goals: Through mentorship or development discussions, discuss and confirm the rationality and feasibility of the learning goals with new human resources. 4) Promote breaking down learning objectives into action plans: Guide new human resources to refine annual learning objectives into concrete actions, such as curriculum improvement, research project applications, or practical projects. Action-oriented design helps transform "wanting to learn" into "actively learning." 5) Dynamic adjustment during goal execution: Regularly review the completion of learning objectives, allowing adjustments based on real-world situations. Flexible goal management can reduce frustration and enhance the willingness to continue learning. 6) Incorporate the achievement of learning objectives into process evaluation: Focus on whether new human resources engage in learning around established goals, rather than just looking at the output results.

The shift in evaluation orientation helps solidify an active learning culture. 7) Highlighting exemplary self-directed learning goals: Through case sharing and experience exchange, demonstrate the practical path for new human resources to autonomously set and successfully achieve learning goals.

Interviewee 2

The new human resources at Guangxi Border Universities face practical issues such as complex teaching situations and significant differences in research foundations. Designing active learning activities with a problem-oriented approach can transform real work challenges into starting points for learning, enhance the practical relevance and urgency of learning, and promote the improvement of abilities and professional development during the problem-solving process.

We can take the following measures: 1) Design learning tasks based on real teaching and management problems: Guide learning around specific issues such as poor classroom teaching effectiveness and significant student differences. Authentic problems are more likely to stimulate the learning motivation and engagement of new human resources. 2) Establish a 'problem bank' to support active learning topic selection: Jointly compile common problems in border universities by teaching supervisors, colleges, and teachers to form a shared problem bank. New human resources can autonomously select problems based on their own context to conduct learning and practice. 3) Integrate problem analysis into the focus of mentor guidance: help new human resources clarify the causes of problems and key variables, and avoid learning that stays at the surface level of experience. Systematic problem analysis helps to enhance the depth and quality of learning. 4) Promote problem-driven action learning practices: Encourage the design of improvement plans around specific problems and implement them in classrooms or projects. Through 'learning by doing,' the problem-solving process itself becomes an active learning process. 5) Enhance reflection and summary after problem-solving: Guide new human resources to reflect on which strategies were effective and which need adjustment after taking action. The reflection phase helps elevate individual experiences into transferable professional knowledge. 6) Promote problem-oriented peer communication: Organize new human resources to conduct case sharing and discussions around common issues, forming a learning community. 7) Integrate

problem-oriented learning outcomes into evaluation and support: Recognize learning and improvement outcomes based on problem-solving.

Interviewee 3

The learning of new human resources at Guangxi Border Universities is often fragmented and relies on external training. By embedding the action learning cycle of 'Plan-Act-Observe-Reflect' into daily teaching and research practices, passive learning can be transformed into a continuous improvement process, helping new human resources to continuously accumulate experience in real situations and achieve the endogenous development of professional competencies.

We can take the following measures: 1) Embed the action learning cycle into the training program: explicitly require new human resources to conduct learning according to the cycle. Institutionalized embedding helps form a stable and sustainable active learning model. 2) Guide the scientific development of an action plan: Assist new human resources personnel in transforming learning objectives into specific and feasible action schemes. A clear action design serves as the foundation for effectively carrying out subsequent observation and reflection. 3) Strengthen the practical implementation during the action process: Encourage new human resources to implement action plans in real classrooms, research, or local service projects. 4) Guide systematic observation and evidence collection: Instruct new human resources personnel to actively record classroom performance, student feedback, or research data during the process. 5) Standardize reflective expression and outcome consolidation: Guide new human resources in structured experience summarization through methods such as teaching reflection logs and action reports. Making reflection outcomes explicit facilitates experience accumulation and sharing. 6) Promote cyclical improvement and reaction: Encourage new human resources to adjust plans based on reflection and move into the next round of actions.

Interviewee 4

The professional development of new human resources at Guangxi Border Universities primarily occurs within real classrooms. By focusing on active learning in teaching contexts, it can enable new human resources to continuously experiment, adjust, and reflect in classroom practice, transforming teaching problems into

learning opportunities, thereby achieving continuous improvement and internal development of teaching skills.

We can take the following measures: 1) Guide the implementation of inquiry-based teaching trials in real classrooms: Encourage new human resources to design problem situations around teaching objectives and guide students to participate in discussions and exploration. 2) Support small-scale, low-risk teaching innovation experiments: Allow new instructors to try new methods in specific courses or teaching segments, without evaluating them based on a single success or failure. Tolerance for trial and error helps enhance teachers' willingness to actively explore. 3) Strengthen immediate reflection on the classroom implementation process: guide new human resources to promptly review key moments and student responses in the teaching scenario after class. Immediate reflection helps rapidly convert experience into improvement strategies. 4) Promote classroom observation and peer feedback mechanisms: Through methods such as lesson listening and evaluation, peer visits, etc., help new human resources to examine their teaching from multiple perspectives. External perspectives can inspire deeper reflection and learning. 5) Guide new human resources to focus on the characteristics of students from border universities: Encourage new human resources to actively analyze the learning needs and differences of students from multi-ethnic and multi-cultural backgrounds in teaching.

Interviewee 5

The new human resources research foundation at Guangxi Border Universities shows significant differences, and the improvement of research capabilities directly affects their career development and teaching feedback effects. Designing active learning activities oriented towards research capabilities can guide new human resources to continuously learn in real research tasks, transforming passive training into a professional development process that equally emphasizes problem-driven and outcome-oriented approaches.

We can take the following measures: 1) Using research tasks as the core carrier for active learning: guide new human resources to carry out learning around project application, research design, and data analysis. Real research tasks can

effectively stimulate learning motivation and enhance engagement. 2) Helps clarify key areas for research capability development: Through research capability diagnosis, it assists new human resources in identifying shortcomings in areas such as methodology, writing, or theory. 3) Strengthen mentors' process guidance in scientific research and learning: focus on the output of results, and place emphasis on guiding thinking and training methods during the research process. 4) Promote a "learning-by-doing" research practice model: Encourage new human resources to learn through practice while participating in project execution, research, and paper revision. 5) Foster a research problem-solving and mutual assistance atmosphere: Through academic salons and research groups, promote the sharing of research confusions and progress among new human resources.

Interviewee 6

The professional development of new human resources at Guangxi Border Universities heavily relies on the understanding of regional industries and social needs. By taking the action learning of industry-Universities-research integration as a key approach, it can organically combine serving the local community, school-enterprise cooperation, and teacher learning, guiding new human resources to practice, reflect, and improve in real projects, and promoting the coordinated development of active learning and the universities' mission.

We can take the following measures: 1) Use industry-academia-research projects as important vehicles for action learning: Guide new human resources to participate in universities-local and Universities-enterprise cooperative projects, and carry out learning in real situations. Project practice can significantly enhance the practical orientation and initiative of learning. 2) Clarify the learning role in integrated projects: Help new human resources to clearly define their tasks and learning focus, avoiding mere transactional participation. A clear role definition enhances the specificity and depth of learning. 3) Strengthen action reflection during project implementation: Guide new human resources to continuously record the decision-making process and practical outcomes in project advancement. 4) Promote the transformation of industry-Universities-research experience into teaching and research: guide new human resources to integrate project experience into course cases, teaching content, or research reports. 5) Recognize the effectiveness of action

learning in evaluation: Emphasize the learning and growth of new human resources in industry-Universities-research projects. Strengthening evaluation orientation can consolidate the integrated and proactive learning path.

Interviewee 7

The teaching and research issues in emerging human resources often have comprehensive and regional characteristics, making it difficult to address them effectively from a single disciplinary perspective. Through interdisciplinary collaborative learning, academic barriers can be broken, enabling emerging human resources to expand cognitive boundaries through communication and cooperation, integrate diverse knowledge into the ability to solve complex problems, and thereby stimulate the motivation for active learning.

We can take the following measures: 1) Build an interdisciplinary collaborative learning platform: Organize joint learning for new human resources from different disciplines in the form of thematic seminars, collaborative teaching research, or project groups. 2) Drive interdisciplinary collaboration with real-world problems: set interdisciplinary topics around border area development, industry needs, or integrated curriculum construction. 3) Promote knowledge interpretation and mutual learning across disciplines: Encourage new human resources to introduce the thinking methods and research tools of their disciplines in a popular way. 4) Support the teaching and research translation of interdisciplinary outcomes: guide new human resources to apply active learning results to curriculum design or collaborative research.

Interviewee 8

Faced with the diverse and varied quality of policy documents, teaching cases, and academic resources, new human resources, by strengthening their ability to self-integrate learning resources, can shift from "passive reception" to "active selection and reconstruction." This enhances learning efficiency and relevance, thereby promoting the continuous occurrence of active learning and the internalization of professional competence.

We can take the following measures: 1) Guide to clearly define the objectives of learning resource integration: Help new human resources to determine the types

of resources needed for teaching improvement or research development. 2) Develop the ability to identify high-quality learning resources: Through training and demonstration, guide new human resources to learn how to judge the applicability of policy documents, literature, and case studies. 3) Encourage the establishment of personal learning resource libraries: Support the systematic organization of teaching materials, research literature, and practical case studies. Building a resource library helps create a long-term, readily available learning support system. 4) Recognition of improvement in resource integration capability during evaluation: Focus on whether the new human resources have formed a stable method of resource integration. Institutional recognition can strengthen a proactive learning orientation.

Interviewee 9

The proactive learning process of new human resources is often implicit and fragmented, making it difficult to continuously improve. By systematically recording and tracking the learning process, it can help new human resources clearly present their learning trajectory, enhance self-reflection awareness, and facilitate managers in providing targeted support, thereby improving the continuity and effectiveness of proactive learning.

We can take the following measures: 1) Cultivate the habit of continuously recording the learning process: Encourage them to document key learning experiences through learning logs, teaching reflections, or research notes. Continuous recording helps to make the learning process visible and strengthens self-awareness. 2) Utilize digital tools to support process tracking: Centrally store learning records through online platforms or electronic archives. Technology support helps with the long-term tracking and analysis of learning progress. 3) Guide record-based periodic reviews: Regularly review learning trajectories, identify progress, and shortcomings. 4) Recognize continuous investment in the learning process during evaluation: Treat the completeness and quality of learning records as an important reference for developmental evaluation. Institutional recognition can reinforce behaviors of proactive recording and reflection.

Interviewee 10

New human resources often find it difficult to timely assess their teaching and research effectiveness. By promoting self-adjustment through diverse feedback, they can obtain information from multiple parties, such as students, peers, and managers, and actively adjust their learning strategies through comparison and reflection, transforming active learning from a unidirectional input into a dynamic process of continuous optimization.

We can take the following measures: 1) Guide the feedback results to be compared and analyzed against learning objectives: Encourage new human resources personnel to compare feedback content with established learning objectives. 2) Promote feedback-based learning strategy adjustments: Guide new human resources to improve teaching methods or research paths based on feedback. Proactive adjustments are an important manifestation of deepening learning. 3) Facilitate peer-to-peer feedback conversations: Through interactive activities, allow new human resources personnel to share how to respond to and utilize feedback. 4) Recognize the improvement in self-adaptation ability in the evaluation: Focus on the process of new human resources continuously optimizing based on feedback. A system-oriented approach helps to consolidate a feedback-driven proactive learning mechanism.

Interviewee 11

If the evaluation and incentive system does not reflect the value of proactive learning, new human resources are likely to focus their efforts on short-term assessment indicators. Embedding a proactive learning system into the evaluation and incentive framework can, through institutional signals, guide new human resources to value the learning process and capability development, promoting the shift of proactive learning from a 'personal choice' to an 'organizational consensus'.

We can take the following measures: 1) Clarify the orientation of active learning: Incorporate active learning participation and quality into the new human resource development evaluation indicators. 2) Highlight the learning process: Focus on process-oriented performance such as learning plans, implementation of actions, and reflection and improvement. 3) Establish a tiered incentive mechanism: Set differentiated learning incentives based on different development stages. 4) Link

proactive learning outcomes with development opportunities: Combine learning achievements with opportunities such as training recommendations and project participation. Opportunity-based incentives can enhance the intrinsic appeal of proactive learning. 5) Regularly evaluate the learning effectiveness of the incentive system: continuously optimize evaluation metrics and incentive methods through feedback. Dynamic adjustments help the system continuously support proactive learning.

Interviewee 12

New human resources are affected by time and space limitations and uneven distribution of resources, resulting in high costs for proactive learning. Empowering them through digital learning can expand learning space, improve the efficiency of acquiring and managing information, and support personalized and continuous learning, transforming proactive learning from a sporadic and spontaneous process to a systematic and traceable development process.

We can take the following measures: 1) Build a unified digital learning support platform: integrate training courses, teaching cases, and research resources to facilitate on-demand learning for new human resources. 2) Guide the development of independent online learning plans: Support them in selecting online courses and resources based on personal development goals. Independent planning helps reinforce the intrinsic motivation for learning. 3) Utilize digital tools to support the learning process documentation: Record learning activities and reflections through electronic logs and online portfolios. 4) Strengthen the learning of technology application in teaching and research: guide new human resources to use digital tools to solve problems in real teaching and research. 5) Feedback on learning effectiveness through data analysis: Utilize platform data to provide new human resources with feedback on learning progress and effectiveness. Data support helps them adjust learning strategies in a timely manner.

2. In your opinion, how to improve the team collaboration management of the new human resources department at Guangxi Border Universities? How to improve the development path of new human resources team collaboration at border universities in Guangxi?

Interviewee 1

New human resources face coexisting challenges of regional limitations, insufficient resources, and career adaptation pressure, with their professional development highly dependent on team collaboration support. Systematically optimizing team collaboration management for new human resources from institutional and organizational levels promotes the coordinated enhancement of individual professional development and school objectives.

We can take the following measures: 1) Institutionalized Team Embedding Mechanism: Coordinate the integration of new human resources into teaching or research teams, clearly defining their collaborative roles and responsibilities within the team to avoid randomness and temporality in team cooperation. 2) Improve evaluation and assessment systems: Clarify new human resources team collaboration indicators, highlight the evaluation value of collaboration processes and team contributions, shifting from a 'personal orientation' to a 'collaboration orientation'. 3) Strengthen the leading responsibility of academic leaders: Clarify the guidance and exemplary duties of academic leaders in the cultivation of new human resources and team collaboration, enhancing the sense of identity and willingness to participate in team collaboration. 4) Optimize resource allocation and time assurance: Reasonably adjust teaching workloads during the new human resource development phase, reserve necessary time for their participation in team collaboration, and enhance the practical feasibility of teamwork. 5) Establish a sound team-based professional development support system: Rely on the teacher development center to organically integrate mentorship, team training, and reflective communication, forming a cultivation model based on teams. 6) Enhance the operability and flexibility of institutional execution: Refine and implement team collaboration systems according to the characteristics of each discipline to improve the alignment between systems and actual team collaboration scenarios. 7) Establish a collaborative process monitoring and feedback mechanism: Through phased evaluations and feedback, dynamically grasp the actual situation of new human resources participating in team collaboration, ensuring the continuity and stability of team collaboration.

Interviewee 2

After new human resources enter universities, their professional development and role adaptation primarily occur within specific teaching and research teams. Improving collaboration management at the team level, by optimizing team operation methods and interaction structures, is a key approach to enhancing the quality of new human resources' training and the overall effectiveness of the team.

We can take the following measures: 1) Clearly define team development goals and phased tasks: Clearly define the overall goals of teaching or research development and create a clear phased task arrangement. 2) Reasonably design team division of labor and role positioning: Set clear and actionable team collaboration roles based on professional background and development stage. 3) Establish a regular team communication mechanism: Conduct regular team meetings and thematic discussions to ensure information sharing and full communication among team members. 4) Foster a supportive and trustworthy team atmosphere: Encourage rational discussion and the expression of diverse viewpoints among team members, creating a collaborative environment that embraces differences and enhances new employees' initiative in participating in teamwork and attempting innovation. 5) Focus on collaboration experience and growth feedback: Regularly understand the sense of participation and gain of new human resources in the collaboration process.

Interviewee 3

Team collaboration in new human resources depends not only on individual willingness but is also deeply influenced by the school's organizational structure, management methods, and support systems.

We can take the following measures: 1) Improve the team entry mechanism under organizational support: Unify the coordination of new personnel entering teaching or research teams to reduce the pressure of individuals independently searching for teams. 2) Optimize management methods in organizational operations: Organizational management should focus on support and coordination, reducing administrative intervention in team collaboration. 3) Strengthen the resource support function at the organizational level: Provide necessary support in terms of time, funding, and platforms for new human resource collaboration, enhancing the

practical feasibility of team collaboration. 4) Establish an organization-level collaboration feedback and improvement mechanism: regularly collect feedback from new human resources involved in team collaboration to drive continuous optimization of team collaboration management.

Interviewee 4

The effectiveness of a new human resources team's collaboration is greatly influenced by educational management philosophies, management styles, and talent development mechanisms.

We can take the following measures: 1) Integrate team collaboration into the teaching management system: Clearly define team collaboration requirements in the operation and curriculum development management of teaching. 2) Optimize the design of training paths in educational management: plan clear growth paths for new human resources, take team collaboration as a key component, and enhance the systematic and continuous nature of collaboration. 3) Strengthen process guidance and feedback in teaching management: focus on the actual experiences and challenges of new human resources in team collaboration, and continuously adjust and improve collaboration skills. 4) Leverage the guiding and exemplary role of education managers: proactively guide and support teachers, creating a management atmosphere that values collaboration and supports new human resources. 5) Improve the collaborative mechanism between educational management and teacher development: Align educational management goals with teacher development support to form a collaborative advancement mechanism, enhancing the overall effectiveness of team-based collaborative management.

Interviewee 5

The effectiveness of the new human resources team collaboration is largely influenced by management systems and practices. If there is insufficient coordination in the recruitment, evaluation, incentive, and training processes, the new human resources are prone to forming individual-oriented behaviors, which is not conducive to their integration and collaborative development within the team.

We can take the following measures: 1) Strengthen collaboration orientation in recruitment and onboarding management: Clarify team collaboration capability

requirements and foster a sense of collaboration. 2) Optimize job allocation and team matching mechanisms: Based on the professional background and development potential of new human resources, scientifically assign their positions and teams to enhance compatibility in team collaboration. 3) Establish a collaboration-oriented incentive and distribution mechanism: Reflect team collaboration contributions in salary, rewards, and development opportunity allocations to enhance the motivation for continuous participation in team collaboration. 4) Strengthen support and services during the human resource management process: Focus on the adaptation of new human resources personnel in team collaboration. 5) Enhance the collaboration and integration level of human resource management: Strengthen the coordinated linkage between human resource management and teaching/research management, and improve the systemic nature and stability of team collaboration management.

Interviewee 6

The enthusiasm of new human resources in participating in team collaboration is closely related to their perception of team performance.

We can take the following measures: 1) Clearly define team performance goals and evaluation criteria: Clearly define teaching or research performance goals at the team level, and clarify the direction of team collaboration. 2) Strengthen the performance feedback and phased evaluation mechanism: Regularly summarize and provide feedback on collaborative performance to enhance the intrinsic motivation of participating teams. 3) Create a team atmosphere oriented toward performance improvement: Emphasize the positive role of collaboration in enhancing overall performance. 4) Focus on performance experience and collaboration stress adaptation: In performance management, balance both results and processes to avoid excessive performance pressure being concentrated on new human resources.

Interviewee 7

The team collaboration skills of new human resources are mainly formed through continuous learning and practice. If the learning management lacks systematic design and team orientation, the improvement of new human resources'

collaboration skills will be slow, making it difficult to effectively integrate into teaching and research teams.

We can take the following measures: 1) Build a learning management model based on teams: Embed new human resources learning activities into teaching and research teams. 2) Clarify the phased goals for team learning: Set clear learning objectives and growth milestones so that new HR personnel understand the collaboration skills they should master at different stages, thereby enhancing the directionality of team cooperation. 3) Establish an internal experience-sharing mechanism within the team: encourage team members to share experiences through teaching observations, research discussions, and other means to enhance team collaboration efficiency. 4) Improve the linkage mechanism between learning outcomes and collaborative performance: Integrate the effectiveness of new human resources' learning with their team collaboration performance for comprehensive evaluation. 5) Create a team environment that supports continuous learning: Provide space for tolerance of failure and continuous learning, enhancing team collaboration, confidence, and initiative.

Interviewee 8

New human resources may encounter problems in team collaboration due to unclear roles, poor communication, and a lack of experience.

We can take the following measures: 1) Establish a normalized mechanism for identifying team issues: regularly review the difficulties and conflicts encountered by new human resources in collaboration to prevent problems from becoming long-term and implicit. 2) Clarify the responsible party and handling process for team issues: Specify that the team leader or mentor will take the lead in addressing them. 3) Strengthen communication and consultation-based problem-solving: Resolve collaboration conflicts through team discussions rather than administrative directives. 4) Integrate problem-solving into daily team management: Incorporate problem discussions into regular meetings or periodic reviews. 5) Establish a feedback and improvement mechanism for team issues: Summarize experiences promptly after problem resolution to form reusable improvement plans.

Interviewee 9

The extent to which new human resources understand the school's and team's development vision directly affects their willingness to collaborate and their level of commitment.

We can take the following measures: 1) Strengthen the vision guidance during the onboarding phase: Introduce the school and team's development vision systematically before taking up the post. 2) Align team vision with individual growth goals: Guide the integration of personal career planning into the team's development blueprint. 3) Play the visionary leading role of academic leaders: convey the team's vision and value pursuit through concrete actions. 4) Establish a feedback and adjustment mechanism for implementing the vision: Regularly assess the team members' understanding and practice of the vision. 5) Creating a team culture with a shared vision: Strengthening common value recognition through academic exchanges and team activities.

Interviewee 10

The participation of new human resources in team collaboration relies heavily on clear and stable institutional arrangements. If the institutional guidance is vague and supporting measures are insufficient, it becomes difficult to define collaborative responsibilities and benefits, which can easily undermine the enthusiasm of new human resources to participate and affect their overall integration into teaching and research teams.

We can take the following measures: 1) Improve the institutional design of team collaboration: Clearly define the basic requirements for new human resources to participate in team collaboration. 2) Integrate team collaboration into the teacher evaluation and assessment system: Set clear team collaboration indicators and actively invest in team building. 3) Clarify the roles and responsibilities of team members within the system: The role and responsibility positioning of the new human resources team in teaching and research, enhancing collaboration efficiency and sense of responsibility. 4) Improve the transparency and predictability of system implementation: promptly disclose collaboration-related systems to new human resources and provide interpretation. 5) Establish an evaluation and feedback

mechanism for the operation of the system: Regularly assess the actual impact of the system on new human resources team collaboration.

Interviewee 11

The team collaboration behavior of new human resources is largely influenced by the orientation of personnel management. If job placement, performance evaluation, promotion, and development support lack coordinated design, it is likely to weaken the stability and sustainability of new human resources' participation in team collaboration.

We can take the following measures: 1) Strengthen the orientation toward team collaboration in job design: clearly define the team collaboration tasks that new human resources need to undertake. 2) Include team collaboration performance in personnel assessment: increase the evaluation of new human resources team participation and collaborative contributions, and enhance the institutional weight of collaborative behaviors. 3) Improve promotion support policies linked to teamwork: Combine team achievements with individual development opportunities to create positive incentives and enhance motivation to participate in teams. 4) Improve the service functions of the personnel department for team collaboration: provide institutional consultation and coordination support for new human resources participating in team collaboration.

Interviewee 12

Whether new human resources can effectively participate in team collaboration largely depends on the sufficiency and symmetry of information acquisition. If the transmission of collaborative information is poor and the rules are not transparent, it will affect their integration into the team and collaborative performance.

We can take the following measures: 1) Establish a unified team collaboration information release platform: Centralize the release of information related to teaching, research, and team collaboration to reduce information fragmentation. 2) Improve information guidance mechanism: Provide team structure, collaboration rules, and process descriptions. 3) Enhance transparent management of collaboration process information: Publicly record project progress, task assignments, and outcome

distribution. 4) Utilize digital tools to support team collaboration management: introduce a collaboration platform to record task assignments and feedback. 5) Establish an information feedback and problem response mechanism: Provide clear channels for information inquiries and feedback.

3. In your opinion, how to improve the rectification management of new human resources duration at Guangxi border universities? How to improve the duration development path of new human resources in Guangxi Border Universities?

Interviewee 1

The new human resources time management issues do not primarily stem from individual incompetence, but are more significantly influenced by the continuous impact of institutional arrangements. Fragmented assessment cycles, strong temporary tasks, and insufficient support system connectivity easily disrupt long-term planning, weakening the stability of continuous improvement and professional development.

We can take the following measures: 1) Improve the periodic assessment system: Refine the annual assessment into a progressive evaluation of 'semester—year—tenure', fostering a long-term planning awareness. 2) Establish a time allocation system for teaching, research, and service work: clearly define the proportion of work focus for new human resources at different development stages to avoid time imbalance caused by overlapping multiple roles. 3) Strengthen institutional collaboration: institutional integration and information sharing. 4) Regularly institutionalize feedback on time usage and improvement effectiveness, transforming personal introspection into a continuous improvement process supported by the organization. 5) Embed flexibility and border context considerations into the system: Consider the specific nature of Guangxi border universities in terms of region, target audience, and work pace, and provide a certain degree of time flexibility.

Interviewee 2

The new human resources time management dilemma is not a personal efficiency issue, but rather a structural impact of organizational management methods on time allocation.

We can take the following measures: 1) Optimize organizational communication mechanisms: Clarify management levels and information transmission paths to reduce time consumption in repeated confirmations and waiting. 2) Strengthen cross-departmental collaborative management: coordinate task pace at the organizational level to avoid duplicated work and resource wastage. 3) Clarify management role division: specify the transactional tasks in the job description. 4) Integrate time management into organizational developmental management evaluation: Focus on the quality of time use for new teachers at the organizational level, rather than simply emphasizing output results. 5) Establish organizational-level reflection and feedback mechanisms: Regular seminars or interviews to collect organizational barriers in time management.

Interviewee 3

The differences in time management among new human resources personnel largely stem from the fact that their personal habits and self-discipline have not yet been firmly established. A lack of consistent planning, execution, and reflection makes it difficult to sustain long-term time adjustments.

We can take the following measures: 1) Guide the formation of a stable time planning habit: Lead them to develop executable semester and weekly plans before starting the job. 2) Strengthen execution awareness: Use task lists and periodic reviews to help turn plans into daily actions. 3) Cultivate a habit of continuous reflective time management: Encourage regular review of time usage effectiveness, identifying inefficient and wasteful areas. 4) Enhancing self-discipline: Strengthen the recognition of the value of time management through goal decomposition and self-motivation mechanisms. 5) Establish a role model demonstration and peer support mechanism: share experiences and engage in peer communication to learn specific practices for effective time management.

Interviewee 4

The sustainability of a new human resources professional's time management is closely related to the strength of their professional motivation and the clarity of their goals. Vague goals or insufficient motivation weaken their sense of direction and internal drive for continuous improvement.

We can take the following measures: 1) Guide the clear definition of phased career development goals: Through initial onboarding and development planning guidance, help them transform abstract visions into actionable, phased objectives. 2) Effectively align personal goals with the school's development goals: By using a goal alignment mechanism, enhance their sense of meaning and belonging in their time investment. 3) Establish a goal-oriented time management guidance mechanism: Emphasize that 'time serves the goal' rather than simply completing tasks during the management and guidance process. 4) Strengthen positive reinforcement: Through timely feedback and periodic affirmation, experience a positive connection between effort and growth. 5) Strengthen goal awareness through reflective dialogue: In mentor guidance or regular interviews, guide the review of time usage and its alignment with goals.

Interviewee 5

New faculty members may experience fluctuations in time management under the combined pressures of teaching, research, and administrative duties. If they lack sufficient ability to cope with stress, they often fall into a reactive mode and struggle to consistently implement time management improvements.

We can take the following measures: 1) Incorporate stress identification into the initial stage of management: clearly understand the structure of stress and reasonably adjust the focus of time investment. 2) Guide to master basic stress management and adjustment methods: Integrate practical strategies such as emotional regulation and task decomposition into onboarding training. 3) Optimize workload distribution: By coordinating and balancing the pace of tasks through organization, the impact of stress on time management can be reduced. 4) Focus on the special stress factors in the context of border universities: Make good use of characteristics such as geographical conditions and the diversity of service objects.

Interviewee 6

New human resources often frequently adjust plans due to insufficient decision-making ability in multi-tasking situations. Unclear priority judgment and hesitation in making choices can easily lead to imbalanced time allocation.

We can take the following measures: 1) Establish a decision support mechanism: Guidance from mentors and management can enhance the certainty of their time-related decisions. 2) Optimize the presentation of task information: clearly define task objectives, deadlines, and priorities to reduce decision-making hesitation caused by ambiguous information. 3) Encourage the formation of stable decision-making patterns in practice: Gradually establish a time allocation strategy suitable for yourself through repeated practice and reflection. 4) Strengthen the decision reflection stage in developmental guidance: guide them during interviews to review the gains and losses of key timing decisions. 5) Integrate decision-making skills into the management system: systematically develop time-based decision-making skills as an essential component of professional development.

Interviewee 7

New human resources are prone to varying degrees of procrastination behavior during task pressure and role adaptation periods, causing time management to remain in a passive response state.

We can take the following measures: 1) Help individuals identify their procrastination types and causes: Through interviews and self-assessment tools, guide them to distinguish between emotional procrastination, task avoidance, or decision procrastination. 2) Promote task 'miniaturization' and reduce the difficulty of starting: By breaking tasks into quickly accomplishable subtasks, it helps reduce avoidance behavior. 3) Establish external time constraints and reduce procrastination: Enhance the time visibility of tasks through phased node reminders and process checks. 4) Curb procrastination through peer supervision and mutual assistance mechanisms: enhance the social visibility of time usage via peer learning, group presentations, and similar approaches. 5) Guide the establishment of a positive completion experience: By providing timely feedback and recognizing small achievements, enhance their positive emotions towards the action itself, which helps break the 'procrastination-anxiety-re-procrastination' cycle.

Interviewee 8

New human resources are often continuously affected by the office environment, information distractions, and situational noise. Frequent interruptions not only weaken concentration but also disrupt the continuity of time management.

We can take the following measures: 1) Optimize office and learning environments: Improving spatial layout and quiet period management can help enhance the quality of continuous work time. 2) Regulate information release and communication frequency: By standardizing information release channels and time windows, help new HR maintain a stable schedule. 3) Strengthen the overall coordination of task scheduling: Through overall planning, the negative impact of the environment on time management can be reduced. 4) Focus on the unique environmental interference factors of border universities: Targeted management helps improve the stability of time management for new human resources. 5) Incorporate environmental optimization into a continuous improvement mechanism: Promote ongoing organizational improvement of environmental conditions.

Interviewee 9

Task overload imbalance weakens the sustainability of time-based rectification efforts, leaving new human resources in a perpetual state of emergency response.

We can take the following measures: 1) Promote overall coordination and advance planning of task pacing: Reduce the time impact of sudden tasks through task previews at the semester or annual level. 2) Guide and enhance the ability to break down and handle complex tasks: provide training to help them decompose complex tasks into manageable phase objectives. 3) Establish a task adjustment and negotiation mechanism: When tasks are overloaded, allow new human resources to provide reasonable feedback and negotiation. 4) Optimize task structure based on the characteristics of border universities: Guangxi border universities undertake special tasks such as serving local communities and facilitating cross-regional exchanges.

Interviewee 10

The time management approach of new human resources is deeply influenced by organizational culture, regional culture, and social values, directly affecting their time investment orientation and willingness for continuous improvement.

We can take the following measures: 1) Integrating school and regional cultural interpretation into training: helping to understand the mission and rhythm characteristics of Guangxi border universities in serving local communities and promoting cultural exchange. 2) Guide the coordination of time perspectives in multicultural backgrounds: Reduce the implicit interference of value conflicts on time management through communication and dialogue. 3) Respect the culture of social relations and reasonably balance the time spent on transactional matters: In cultural contexts involving personal connections and collaboration, unnecessary tasks should be prevented from expanding indefinitely. 4) Build a value evaluation system that supports sustainable development: prioritize long-term investment and steady growth, and reduce short-term utilitarian focus.

Interviewee 11

The differences in time management among new human resources are closely related to their proficiency in professional skills and the accumulation of job experience. Insufficient skills or a lack of experience can easily extend task completion time and increase the cost of trial and error.

We can take the following measures: 1) Systematically enhance core skill levels for positions: Reduce the time required to complete tasks through targeted training for teaching, research, and administrative affairs. 2) Establish a mentorship mechanism to accelerate knowledge transfer: transform tacit knowledge into learnable, practical paths through the 'guidance and assistance' approach. 3) Encourage the development of personalized time management strategies through practice: guide new human resources personnel to continuously adjust methods based on their own characteristics. 4) In developmental evaluation, focus on the process of skill and efficiency improvement: examine the output of results, and also pay attention to changes in the time required to complete tasks. 5) Integrate with the

actual situation of border universities, strengthen the cultivation of composite abilities: carry out cross-disciplinary skill support.

Interviewee 12

Vague task boundaries, unclear processes, and chaotic priorities can lead to scattered time investment for new human resources, weakening the stability and controllability of rectification efforts over time.

We can take the following measures: 1) Clarify task categories and boundaries: By clearly categorizing teaching, research, and administrative tasks, help new human resources personnel understand the work structure. 2) Establish a unified task list and tracking mechanism: Improve task visualization and controllability through centralized task management tools. 3) Enhance task prioritization and dynamic adjustment: Guide timely adjustments to schedules amid task changes to avoid distributing effort evenly. 4) Promote the standardization of task processes: By process sorting and standardization, reduce time waste caused by unfamiliarity with the process. 5) Establish a task negotiation and feedback mechanism: When tasks overlap or conflict, provide feedback and make adjustments through organizational channels.

4. In your opinion, how to improve the new human resources content focus reconstruction management of Guangxi Border Universities? How to improve the new human resources content focus development path of Guangxi Border Universities?

Interviewee 1

Institutional mission and regional needs serve as the fundamental orientation for the educational reform and high-quality development. New human resources can enhance their professional value by aligning their content focus with the universities' mission and local socio-economic development needs.

We can take the following measures: 1) Establishing a mission-oriented content planning mechanism: Formulate long-term content development plans that integrate teaching, research, and service activities into a mission-driven framework. 2) Strengthening regional-specific teaching and research content: Integrate themes such as border governance, ethnic culture, and China-ASEAN exchanges into the curriculum and research. 3) Mentorship and experience-sharing mechanisms: Assign

senior faculty or administrators to guide new human resources in understanding the underlying logic of the universities' mission and regional needs. 4) Dynamic adjustment and continuous optimization mechanisms: Regularly collect feedback on teaching and research to adjust content focus in response to evolving regional needs.

Interviewee 2

Core job tasks serve as the starting point for the professional development of universities faculty.

We can take the following measures: 1) Delineating job responsibilities and core task boundaries: Refine and quantify teaching, research, and social service tasks for each position to ensure a clear understanding of key priorities. 2) Developing a priority list for job tasks: Define the order of importance to guide the rational allocation of time and energy. 3) Linking job tasks with content focus: Map each core task to specific teaching modules or research themes. 4) Establishing a correlation mechanism between task performance and content focus: Integrate the quality of core task completion and the effectiveness of content focus into appraisal indicators to achieve closed-loop management. 5) Optimizing task allocation through cross-position collaboration: Distribute tasks reasonably to highlight individual core responsibilities.

Interviewee 3

Disciplines and professional fields serve as the core engine for the content focus of new human resources.

We can take the following measures: 1) Defining disciplinary and professional development paths: Establish clear disciplinary positioning and professional direction planning to ensure that teaching and research align with the universities' strong disciplines. 2) Establishing mechanisms for interdisciplinary collaboration and characteristic expansion: Facilitate moderate cross-disciplinary cooperation and exploration of frontier/fringe fields. 3) Guiding professional content focus through mentorship: Assist staff in identifying core professional areas, eliminating secondary content, and clarifying disciplinary priorities. 4) Implementing dynamic optimization and professional iteration mechanisms: Regularly review disciplinary content and make adjustments based on academic trends and the universities' strategic goals.

Interviewee 4

The modular reconstruction of teaching content breaks down complex knowledge systems into manageable, focused units, helping new human resources quickly grasp the core content.

We can take the following measures: 1) Constructing a modular curriculum system: Categorize courses into foundational, applied, and specialized modules. 2) Defining modular learning objectives and outcomes: Establish clear teaching goals and expected outcomes that focus on core knowledge points. 3) Integrating modular teaching resources: Consolidate textbooks, cases, experiments, and online resources by module to create a reusable resource library. 4) Embedding practice and case studies into modules: Integrate practical activities and case analyses to enhance the applied value of knowledge points. 5) Implementing dynamic adjustment and modular iteration mechanisms: Update modular content based on teaching effectiveness and disciplinary developments.

Interviewee 5

Streamlining research themes helps new human resources focus on their academic core and build long-term research accumulation, preventing the fragmentation of research directions.

We can take the following measures: 1) Establishing long-term research mainlines: Select one or two primary research themes as the core for development, based on disciplinary strengths and personal interests. 2) Guiding research focus through mentorship: Senior faculty provide strategic planning for research directions and methodological guidance. 3) Conducting periodic assessments of research outcomes: Regularly evaluate research progress and outputs to ensure alignment with the primary research themes. 4) Facilitating interdisciplinary collaboration and mainline expansion: Conduct cross-disciplinary research appropriately to expand the space for innovation. 5) Implementing dynamic optimization mechanisms for research content: Adjust research mainlines according to academic frontiers and social needs to promote the continuous upgrading of research content.

Interviewee 6

The development of course clusters and course chains enables the integration of individual courses into a systematic teaching framework, helping new human resources achieve continuity and progression in their teaching content.

We can take the following measures: 1) Constructing systematic course clusters: Form course clusters based on knowledge structures and skill progression to clarify teaching priorities. 2) Designing course chains and knowledge articulation: Define the sequencing and connections between courses to ensure an orderly progression of knowledge points. 3) Integrating course cluster resources modularly: Consolidate textbooks, cases, experiments, and practical activities according to the course chain to create a reusable teaching resource library. 4) Facilitating cross-course collaboration and team teaching: Collaborate with peers in the same field to unify course content and teaching tempo. 5) Implementing dynamic optimization and course chain iteration: Regularly adjust the content of course clusters and chains based on feedback and pedagogical evaluations.

Interviewee 7

Digital technology and resource integration enable the efficient aggregation of teaching, research, and practical resources, providing new human resources with reusable content tools.

We can take the following measures: 1) Establish a digital resource platform: Integrate course materials, case libraries, experimental resources, and research outcomes into a unified digital platform. 2) Facilitating resource sharing and team collaboration: Share teaching and research resources across disciplines and teams to form a synergistic mechanism. 3) Utilizing digital tools to assist instructional design: Leverage Learning Management Systems, online experimental platforms, and digital case libraries to support curriculum design. 4) Conducting training and capacity building: Organize regular sessions on digital tools and resource management to enhance skills in resource utilization and content integration. 5) Implementing dynamic updates and iteration mechanisms: Regularly iterate the resource library based on instructional needs, research developments, and technological updates.

Interviewee 8

Strengthening practice-oriented content facilitates the tight integration of theoretical teaching with practical application, helping new human resources effectively transform core knowledge into problem-solving capabilities.

We can take the following measures: 1) Designing practice-driven curriculum content: Combine theoretical knowledge with experiments, case studies, and corporate or community-based projects. 2) Establishing Universities-industry collaborative platforms: Partner with local enterprises, public institutions, or communities to provide practical scenarios and project resources. 3) Integrating modular practical tasks with assessment: Deconstruct practical activities into manageable modules and link them with performance appraisals or outcome evaluations. 4) Implementing continuous feedback and content iteration mechanisms: Dynamically adjust teaching and research practices based on feedback, practical results, and regional demands.

Interviewee 9

New human resources exhibit varying needs for competency, energy, and resources across different career development stages regarding teaching, research, and service.

We can take the following measures: 1) Defining core tasks by stage: Categorize the development of new HR into the induction phase, professional growth phase, and research breakthrough phase, setting key priorities for each. 2) Providing stage-specific training and capacity building: Offer differentiated training—such as pedagogical methods, research skills, or team collaboration—tailored to different development stages. 3) Implementing stage-based mentorship and coaching: Provide targeted guidance and feedback based on the individual's current professional stage. 4) Continuous iteration and content optimization: Adjust the focus of teaching, research, and service activities based on periodic development outcomes and institutional strategic goals.

Interviewee 10

The evaluation system directly influences the work behavior and content focus of new human resources.

We can take the following measures: 1) Linking evaluation standards with core tasks: Closely align the universities' teaching, research, and service evaluation indicators with core job responsibilities. 2) Establishing a staged evaluation mechanism: Design periodic evaluation indicators tailored to different development stages, covering teaching quality, research progress, and service contributions. 3) Facilitating content optimization through evaluation feedback: Regularly cross-reference evaluation results with individual work content to provide specific suggestions for improvement. 4) Creating an incentive-linked evaluation mechanism: Link evaluation results with rewards, promotion, and resource allocation to reinforce focus on core content. 5) Dynamically adjusting the evaluation system: Optimize evaluation indicators and weightings based on institutional strategic shifts and regional development needs.

Interviewee 11

Through mentorship and content orientation, new human resources can be assisted in clarifying their core directions in teaching, research, and service.

We can take the following measures: 1) Establish a mentor-pairing system: Assign experienced mentors to new human resources to take responsibility for content planning and career development guidance. 2) Guiding focus on core tasks: Assist staff in identifying core job responsibilities and high-priority content to clarify key work areas. 3) Organizing regular seminars and case sharing: Conduct teaching and research case discussions to encourage learning from successful experiences. 4) Providing stage-based content planning guidance: Offer phased content planning advice according to the induction stage to ensure an orderly progression of tasks. 5) Implementing mentor feedback and continuous optimization: Provide regular feedback on teaching, research, and practical content to help new HR optimize their content structure.

Interviewee 12

Through systematic reflection and iteration mechanisms, new human resources can continuously focus on core tasks and improve work efficiency.

We can take the following measures: 1) Establish a regular reflection mechanism: Encourage self-reflection after each semester or project to consolidate

successful experiences and identify problems. 2) Designing a content iteration workflow: Incorporate teaching modules, research projects, and practical initiatives into an iteration management system to regularly optimize content structures. 3) Utilizing multi-dimensional evaluation and data support: Use diverse data—such as teaching evaluations, research outputs, and student feedback—to support reflection and informed decision-making for iteration. 4) Conducting periodic goal reviews and adjustments: Regularly review goal attainment based on professional development stages and adjust the content focus accordingly. 5) Establishing a mechanism for sharing iteration outcomes: Share experiences and optimized results from the iteration process to facilitate organizational learning.

5. In your opinion, how to improve the evidence reflection management of new human resources in border universities in Guangxi? How to improve the reflection and internalization development path of new human resources at Guangxi Border Universities?

Interviewee 1

Integrating evidence sources serves as the foundation for reflective management among new human resources. Evidence from diverse sources provides multi-dimensional insights, reducing decision-making bias and enhancing the scientific rigor of human resources management.

We can take the following measures: 1) Establishing a diversified evidence collection mechanism: Integrate research outputs, pedagogical evaluations, staff feedback, and organizational data to achieve comprehensive information gathering. 2) Developing evidence quality standards: Define criteria for the credibility, validity, and applicability of evidence to filter for high-quality information. 3) Building a unified data platform: Centrally manage various types of evidence to enable information sharing and specialized visual analysis. 4) Introducing external benchmarking and case studies: Incorporate data from the best practices of domestic and international universities into the evidence system. 5) Training faculty in evidence analysis capabilities: Conduct sessions on data interpretation and evidence application to enhance the judgment and reflective skills of new human resources. 6) Establishing

an evidence feedback closed-loop: Feed management results back into the evidence repository to create a "collection–analysis–application–feedback" cycle.

Interviewee 2

Data-driven recruitment and selection provide universities with quantified and objective human resources information, establishing a factual basis for evidence-based reflective management.

We can take the following measures: 1) Improving the recruitment data collection system: Gather multi-dimensional data, including applicants' educational background, research outputs, teaching experience, and interview performance. 2) Establishing a scientific selection indicator system: Develop quantitative standards such as teaching competency scores, research output metrics, and comprehensive quality evaluations. 3) Applying data analysis to support decision-making: Utilize statistical analysis and visualization tools to conduct comprehensive assessments of candidate data. 4) Conducting reviews and reflections on recruitment effectiveness: Track the performance data of new human resources to evaluate the accuracy of selection decisions. 5) Introducing external recruitment benchmarking information: Reference recruitment data and best practices from domestic and international universities to incorporate external experience into the reflective system.

Interviewee 3

Indicator-based performance appraisal provides universities with quantifiable work performance data, making evidence-based reflective management more objective and scientific.

We can take the following measures: 1) Refining the performance indicator system: Develop quantitative indicators covering teaching, research, and social service to ensure a comprehensive and objective evaluation. 2) Establishing a performance data collection mechanism: Systematically collect data on faculty's daily teaching evaluations, research outputs, student advisement, and social service. 3) Applying data analysis to support reflection: Utilize statistical methods and visualization tools to analyze performance data, identifying trends and critical issues. 4) Creating a closed-loop for continuous improvement: Apply the results of performance reflections to faculty development, role adjustments, and training

programs. 5) Training faculty in performance data interpretation: Enhance faculty's ability to analyze their own indicator data, enabling self-reflection and the optimization of teaching and research methodologies. 6) Introducing external benchmarking and best practices: Reference performance indicators and management experiences from domestic and international universities to incorporate benchmarking information into the appraisal system.

Interviewee 4

The alignment of human resources strategy with institutional goals ensures that evidence-based reflective management in universities human resources is consistent with the universities' development direction.

We can take the following measures: 1) Clarifying the link between human resources strategy and Universities development goals: Align HR strategies—such as recruitment, training, and performance management—with the universities' key disciplines and development plans. 2) Establishing a strategic indicator management system: Develop quantifiable strategic performance indicators to link human resources objectives with outcomes in teaching, research, and social service. 3) Cultivating strategic awareness among human resources and faculty: Conduct training on human resources strategic management and institutional operations to ensure that new human resources incorporate long-term goals into their reflections. 4) Feeding reflection results back into strategic decision-making: Incorporate faculty competency assessments, performance data, and training effectiveness into the considerations for strategic adjustments. 5) Building a strategic benchmarking and best practice repository: Reference successful cases of HR strategic alignment from domestic and international universities and integrate these experiences into the institution's management system. 6) Regularly evaluating the effectiveness of strategic and human resources alignment: Use data analysis to assess the extent to which human resources management supports the universities' strategic goals.

Interviewee 5

Internal data governance impacts the reliability and efficiency of evidence-based reflective management in universities human resources.

We can take the following measures: 1) Establishing unified data standards: Standardize the formats and metrics for faculty profiles, performance, research, and training data to ensure cross-Universities consistency. 2) Implementing data quality monitoring: Regularly inspect data for completeness, accuracy, and timeliness, ensuring prompt correction of any issues. 3) Optimizing permissions and security management: Clarify data access rights and confidentiality requirements to protect personal privacy and sensitive information. 4) Conducting data governance training: Train human resources staff and faculty in data management and analysis skills to enhance their ability to use and interpret data. 5) Establishing data feedback and update mechanisms: Promptly feed management practices and reflection results back into the data platform to ensure continuous information updates.

Interviewee 6

Reflective and professional judgments are the core competencies required for universities human resources to conduct evidence-based reflective management effectively.

We can take the following measures: 1) Strengthening professional judgment training: Conduct case-study training sessions tailored to teaching, research, and management scenarios to enhance the comprehensive judgment capabilities of new human resources. 2) Establishing a structured reflection process: Design standardized reflection templates to guide practitioners through a step-by-step process of evidence analysis, problem identification, and the formulation of improvement plans. 3) Conducting peer reviews and experience sharing: Organize regular sessions to share cases and reflective insights, improving the quality of judgment through mutual evaluation and peer learning. 4) Integrating data-supported judgment tools: Combine performance, recruitment, and research data to provide a quantitative basis for the professional judgment of new human resources. 5) Introducing external expert guidance: Invite industry experts or senior faculty from elite universities to provide professional insights and guidance for the reflection process.

Interviewee 7

Continuous improvement and circular feedback are the core mechanisms of evidence-based reflective management in universities human resources.

We can take the following measures: 1) Establish a systematic feedback mechanism: Regularly collect feedback information regarding faculty performance, training outcomes, and research achievements. 2) Designing a closed-loop improvement process: Transform feedback into specific improvement plans and verify their effectiveness in practice, forming a cycle of "Execute–Feedback–Adjust–Re-execute." 3) Promoting data-driven improvement decisions: Utilize quantitative data analysis to identify bottlenecks and areas for enhancement. 4) Building a performance and improvement record repository: Document each improvement measure and its outcome to create traceable and reusable knowledge assets that support long-term progress. 5) Conducting training to enhance improvement capabilities: Provide training to help staff master feedback analysis and improvement methodologies.

Interviewee 8

Competency development and analysis provide new human resources with quantified and structured personal development information, serving as a critical foundation for evidence-based reflective management.

We can take the following measures: 1) Establishing competency models and indicator systems: Define the core competency indicators required for teaching, research, and management roles. 2) Conducting regular competency assessments: Implement systematic evaluations of new human resources using a combination of testing, peer review, and self-reflection. 3) Formulating personalized development plans: Design targeted training and improvement programs for new human resources based on their assessment results. 4) Tracking the effectiveness of competency development: Perform continuous tracking and data recording on the outcomes of training and development initiatives. 5) Promoting the accumulation of interdisciplinary and cross-functional experience: Encourage participation in diverse disciplines and roles to enhance multi-dimensional competencies.

Interviewee 9

Compensation, benefits, and incentive effectiveness assessments provide objective data on motivation and performance for new human resources, serving as an essential reference for evidence-based reflective management.

We can take the following measures: 1) Establish a compensation and incentive indicator system: Define quantitative standards for compensation and incentives across teaching, research, and management roles. 2) Developing a compensation and incentive data feedback mechanism: Integrate incentive outcomes and performance data of new human resources into a continuous feedback system, creating an "Implementation–Assessment–Reflection–Adjustment" closed-loop. 3) Introducing internal benchmarking and external references: Reference the compensation and incentive practices of various universities and incorporate best practices into institutional strategies. 4) Strengthening the alignment of incentives with strategic goals: Ensure that compensation and incentive policies directly support the universities' strategies for teaching, research, and disciplinary development.

Interviewee 10

Diversity, Equity, and Inclusion (DEI) metrics provide data support regarding faculty demographics, resource allocation, and the sense of belonging for evidence-based reflective management of new human resources.

We can take the following measures: 1) Establishing a DEI indicator system: Develop indicators covering gender, discipline, position, experience, and cultural background to measure diversity and inclusivity. 2) Regularly collecting DEI-related data: Gather feedback on the experiences of equity and inclusion among new human resources through surveys, interviews, and organizational statistics. 3) Analyzing data to identify gaps and issues: Utilize data analysis to recognize potential imbalances or inequities in resource allocation. 4) Designing targeted improvement measures: Implement improvement strategies such as training, mentorship, or role adjustments based on identified issues. 5) Establishing a DEI feedback and closed-loop mechanism: Continuously track the effectiveness of improvements and feed them back into management decisions, forming a cycle of "Collection–Analysis–Improvement–Re-evaluation." 6) Cultivating DEI awareness among human resources and faculty: Enhance the ability of faculty and managers to understand and apply data related to diversity, equity, and inclusion.

Interviewee 11

Risk and compliance assessments provide data support for preventing institutional, legal, and ethical risks within the evidence-based reflective management of new human resources.

We can take the following measures: 1) Conducting regular risk reviews and evaluations: Perform compliance audits on core human resources processes, including recruitment, performance appraisal, training, and promotion. 2) Providing risk awareness training: Train new human resources to understand relevant laws, regulations, and internal institutional requirements to enhance their risk identification capabilities. 3) Integrating risk data with decision feedback: Incorporate identified risks and compliance issues into the evidence-based reflection system, forming a "Discovery–Analysis–Improvement–Review" closed-loop. 4) Establishing early warning and response mechanisms: Set up early warning indicators and emergency response protocols for potential institutional or legal risks.

Interviewee 12

Cost-benefit and business return assessments provide a quantitative basis for resource input and output within the evidence-based reflective management of new human resources.

We can take the following measures: 1) Establish a cost-benefit evaluation system: Define input costs and output indicators for various stages of human resources management. 2) Regularly analyzing project returns: Conduct input-output analysis for initiatives such as training, incentives, and recruitment to evaluate their actual effectiveness. 3) Integrating benefit data into decision feedback: Form a closed-loop management mechanism of "Input–Assessment–Reflection–Optimization" based on data analysis. 4) Optimizing resource allocation strategies: Adjust the priority of funding, time, and manpower allocation based on the results of benefit analysis. 5) Establishing long-term benefit tracking mechanisms: Continuously monitor the long-term impact of human resources measures on faculty development, performance, and the university's strategic objectives.

[illegible]

[illegible]

Appendix D

The Results of the Quality Analysis of Research Instruments

The index of objective congruence (IOC)
Professional Development Enhancement Model for New Human
Resources in Border Universities in Guangxi

No	Current situation of the professional development of new human resources	Experts					IOC	Validity
		1	2	3	4	5		
I	Active learning							
1	Administrators develop and implement task-driven adaptive professional development interventions for new human resources.	1	1	1	1	1	1.00	Valid
2	Administrators develop a "research-practice" mechanism for new human resources to actively improve their ability of educational.	1	1	1	1	0	0.80	Valid
3	Administrators motivate new human resources to proactively actively in the 'Plan-Act-Observe-Reflect' cycle.	1	1	1	1	1	1.00	Valid
4	Administrators organize new human resources to write educational logs or cases, and actively engage in case studies.	1	1	1	1	1	1.00	Valid
5	Administrators guide new human resources to actively adjust their educational strategies.	1	1	1	1	1	1.00	Valid
6	Administrators guide new human resources to attribute typical events to reasoning and actively form intervention strategies.	1	1	1	1	1	1.00	Valid
7	Administrators motivate new human resources to actively participate in interdisciplinary educational activities.	1	1	1	1	1	1.00	Valid
8	Administrators motivate new human resources to actively carry out iterative	1	1	1	1	1	1.00	Valid

No	Current situation of the professional development of new human resources	Experts					IOC	Validity
		1	2	3	4	5		
	experiments on teaching methods.							
9	Administrators motivate new human resources to actively engage in immersive professional practice.	1	1	1	1	1	1.00	Valid
10	Administrators guide new human resources to actively inspire new academic thinking and research ideas in practice.	1	1	1	1	1	1.00	Valid
II	Collaboration							
11	Administrators establish and regularly maintain team knowledge-sharing channels.	1	1	1	1	1	1.00	Valid
12	Administrators help new human resources achieve interdisciplinary or cross-departmental collaboration.	1	1	1	1	1	1.00	Valid
13	Administrators clearly define the team roles for new human resources, promoting member collaboration and development.	1	1	1	1	1	1.00	Valid
14	Administrators organize new human resources to flexibly adjust cooperation models and dynamically optimize team collaboration relationships.	1	1	1	1	1	1.00	Valid
15	Administrators guide new human resources to establish a cooperative awareness based on the principle of reciprocity.	1	1	1	1	1	1.00	Valid
16	Administrators encourage new human resources to engage in peer learning and share their experiences.	1	1	1	1	1	1.00	Valid
17	Administrators guide new human resources to spark new ideas in team discussions.	1	1	1	1	1	1.00	Valid
18	Administrators guide new human resources	1	1	1	1	1	1.00	Valid

No	Current situation of the professional development of new human resources	Experts					IOC	Validity
		1	2	3	4	5		
	to clarify the operationality of the collaborative vision.							
19	Administrators adjust the team collaboration model for new human resources to strengthen team collaboration skills.	1	1	1	1	1	1.00	Valid
20	Administrators guide new human resources to experience the multi-dimensional interactive value.	1	1	0	1	1	0.80	Valid
III	Duration							
21	Administrators develop systematic and sustainable professional development plans for new human resources.	1	1	1	1	1	1.00	Valid
22	Administrators clearly define the sustainability of the various stages of professional development goals for new human resources.	1	1	1	1	1	1.00	Valid
23	Administrators regularly check the progress of new human resources' professional development and build feedback mechanisms.	1	1	1	1	1	1.00	Valid
24	Administrators continuously and routinely adjust the professional development activities for new human resources.	1	1	1	1	1	1.00	Valid
25	Administrators motivate new human resources to continuously participate in professional activities and constantly update their knowledge system.	1	1	1	1	1	1.00	Valid
26	Administrators motivate new human resources to continuously improve and	1	1	1	1	1	1.00	Valid

No	Current situation of the professional development of new human resources	Experts					IOC	Validity
		1	2	3	4	5		
	provide feedback and suggestions.							
27	Administrators motivate new human resources to transform innovative strategies into routine practices.	1	1	1	1	1	1.00	Valid
28	Administrators motivate new human resources to rely on continuous practice to activate the internal motivation for professional development.	1	1	1	1	1	1.00	Valid
29	Administrators build a sustainable support system to drive new human resources to transform effective practices from temporary measures into regular practices.	1	1	1	1	1	1.00	Valid
30	Administrators help new human resources enhance their self-efficacy and boost their confidence in future professional growth.	1	1	1	1	1	1.00	Valid
IV	Content focus							
31	Administrators guide new human resources to build a systematic content system.	1	1	1	1	1	1.00	Valid
32	Administrators guide new human resources to reorganize content, presenting a logically coherent and hierarchically progressive content structure.	1	1	1	1	1	1.00	Valid
33	Administrators motivate new human resources to continuously optimize content and activity design.	1	1	1	1	1	1.00	Valid
34	Administrators guide new human resources to balance theoretical depth and practical application.	1	1	1	1	1	1.00	Valid
35	Administrators guide new human resources	1	1	1	1	1	1.00	Valid

No	Current situation of the professional development of new human resources	Experts					IOC	Validity
		1	2	3	4	5		
	to organically integrate educational philosophy with the value of subject content into practice.							
36	Administrators motivate new human resources to implement industry-education integration, enhancing their professional skills.	1	1	1	1	1	1.00	Valid
37	Administrators motivate new human resources to simulate industry scenarios and explore the application value of the content.	1	1	1	1	1	1.00	Valid
38	Administrators motivate new human resources to carry out project-based activities and implement the practical application of the content.	1	1	1	1	1	1.00	Valid
39	Administrators motivate new human resources to regularly update teaching syllabi, integrating cutting-edge content and restructuring the content framework.	1	1	1	1	1	1.00	Valid
40	Administrators motivate new human resources to build an ecosystem of professional development, forming distinctive teaching styles and academic directions.	1	0	1	1	1	0.80	Valid
V	Reflection							
41	Administrators motivate new human resources to carry out targeted reflection around core issues.	1	1	1	1	1	1.00	Valid
42	Administrators motivate new human	1	1	1	1	1	1.00	Valid

No	Current situation of the professional development of new human resources	Experts					IOC	Validity
		1	2	3	4	5		
	resources to identify key influencing factors and clarify improvement directions.							
43	Administrators guide new human resources to dare to question and objectively examine the rationality of their work.	1	1	1	1	1	1.00	Valid
44	Administrators guide new human resources to analyze their strengths and weaknesses based on feedback.	1	1	1	1	1	1.00	Valid
45	Administrators guide new human resources to use peer feedback and adjust subsequent strategies.	1	1	1	1	1	1.00	Valid
46	Administrators guide new human resources to sort out successful experiences, achieving collaborative evolution of professional judgment.	1	1	1	1	1	1.00	Valid
47	Administrators guide new human resources to collect evidence and conduct critical attribution reasoning.	1	1	1	1	1	1.00	Valid
48	Administrators guide new human resources to analyze typical educational cases and extract reusable improvement strategies.	1	1	1	1	1	1.00	Valid
49	Administrators motivate new human resources to try new methods in micro-experiments and record the results and optimization plans.	1	1	1	1	1	1.00	Valid
50	Administrators motivate new human resources through a "practice-reflection-adjustment" cycle, transforming them from novice teachers into expert teachers.	1	1	1	1	1	1.00	Valid

1. Reliability Analysis

Simplified Format of Cronbach's Reliability Analysis		
Number of Items	Sample Size	Cronbach's Alpha Coefficient
50	30	0.965

From the table above, it can be seen that the reliability coefficient value is 0.965, which is greater than 0.9, indicating that the quality of the research data reliability is high. Regarding the " α " coefficient with deleted items, the reliability coefficient does not significantly increase when any item is deleted. Therefore, it indicates that the items should not be deleted. Regarding the "CITC value," the CITC values for all analyzed items are above 0.2, indicating that there is a good correlation between the analyzed items, which also indicates a good reliability level. In summary, the reliability coefficient value of the research data is higher than 0.9, which comprehensively indicates high data reliability quality and can be used for further analysis.

2. Suitability Analysis

KMO and Bartlett's tests		
KMO value		0.947
Bartlett's sphericity test	Approximate chi-square	8039.427
	df	1225
	p-value	0.000

The KMO and Bartlett tests were used to validate the adaptability. From the table above, it can be seen that the KMO value is 0.947, which is greater than 0.8, indicating that the research data is highly suitable for extracting information (which indirectly reflects good adaptability).

Appendix E

Certificate of English



This is to certify that

Miss Mo Xiuqing

Achieved BSRU English Proficiency Test (BSRU-TEP) level

C1

Given on 3rd November 2023

A handwritten signature in blue ink, appearing to be 'Kulirin', written in a cursive style.

(Assistant Professor Dr Kulirin Aphiratvoradej)
Director

Appendix F

The Document for Acceptance Research

SCIENTIFIC CULTURE https://sci-cult.com ISSN: (online) 2407-9529; (print) 2408-0071 	Acceptance Letter 
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To Patchara Dechhome *Corresponding Author: patchara.de@bsru.ac.th		Ref #: SC-268 Date: Mar 09, 2026
1	Title	Professional Development Enhancement Model for New Human Resources in Border Universities in Guangxi
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	Authors	¹ Mo Xiuqing, ² Patchara Dechhome, ³ Niran Sutheeniran, ⁴ Sarayuth Sethakhajorn, ⁵ Sahapat Insee ^{2*} Corresponding Author: patchara.de@bsru.ac.th Note: It is a conditional letter of acceptance as the author has not completed all requirements of publication so far. This letter is only for administrative purpose and cannot be used for academic promotion or graduate studies requirements.
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