

THE DEVELOPMENT OF LEADERSHIP STYLE MODEL FOR
ADMINISTRATORS IN VOCATIONAL COLLEGES IN GUIZHOU

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

Academic Year 2026

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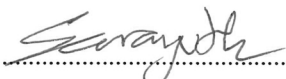
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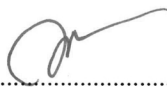
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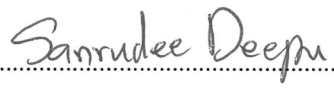
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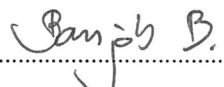
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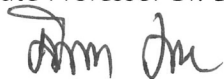
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Academic Year	2025

ABSTRACT

This study employed an explanatory sequential mixed-methods design—a two-phase design with quantitative survey (Phase 1) followed by qualitative semi-structured interviews (Phase 2), plus expert evaluation (Phase 3). The objectives of this research were: 1) to diagnose the current perceived levels of five leadership styles—Information, Transformational, Ethical, Innovative, and Digital—among administrators in vocational colleges in Guizhou Province, China; 2) to develop a contextually appropriate leadership style model tailored to these administrators; and 3) to evaluate the adaptability and feasibility of the proposed model for implementation. The sample consisted of 205 teachers for the questionnaire survey, 14 administrators for semi-structured interviews, and 12 experts for model evaluation. Research instruments included: 1) a questionnaire, 2) a semi-structured interview, and 3) an evaluation form. Data were analyzed using percentage, mean, standard deviation, and content analysis.

Addressing the lack of a contextually sensitive leadership model for vocational college administrators in less developed western China, this study constructed a five dimensional leadership development model comprising 33 actionable measures: Information leadership (7 measures, current $M=3.72$, $SD=1.02$), Transformational leadership (6 measures, $M=3.73$, $SD = 1.05$), Ethical leadership (6 measures, $M=3.76$, $SD = 0.99$), Innovative leadership (7 measures, $M=3.74$, $SD=1.03$), and Digital leadership (7 measures, $M=3.72$, $SD=1.00$). The model's architecture (Figure 4.1) presents the five dimensions linked by synergistic relationships, with Ethical

leadership serving as the normative foundation and Digital leadership as the technological enabler.

Expert evaluation confirmed the model's high adaptability ($M=4.42$) and feasibility ($M=4.21$), with Digital leadership rated most adaptable ($M= 4.51$). The model provides a context-sensitive framework that addresses the triple nexus of resource scarcity, cultural diversity, and digital transformation. It contributes to leadership theory by demonstrating how Confucian-collectivist values moderate the expression of Western-derived leadership constructs, and offers a replicable diagnostic tool for vocational education governance in analogous ASEAN contexts.

Keywords: Leadership style, Development model, Vocational colleges

ชื่อเรื่อง	การพัฒนารูปแบบภาวะผู้นำสำหรับผู้บริหารวิทยาลัย อาชีวศึกษาในมณฑลกุ้ยโจว
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บทคัดย่อ

งานวิจัยนี้ใช้ระเบียบวิธีวิจัยแบบผสมผสานลำดับเชิงอธิบาย ซึ่งเป็นการออกแบบสองระยะ ประกอบด้วย การสำรวจเชิงปริมาณ (ระยะที่ ๑) ตามด้วยการสัมภาษณ์แบบกึ่งโครงสร้างเชิงคุณภาพ (ระยะที่ ๒) และการประเมินโดยผู้เชี่ยวชาญ (ระยะที่ ๓) โดยมีวัตถุประสงค์ ๓ ประการ ได้แก่ ๑) เพื่อวินิจฉัยระดับการรับรู้รูปแบบภาวะผู้นำทั้ง ๕ รูปแบบในปัจจุบัน ได้แก่ ภาวะผู้นำด้านสารสนเทศ ภาวะผู้นำการเปลี่ยนแปลง ภาวะผู้นำเชิงจริยธรรม ภาวะผู้นำเชิงนวัตกรรม และภาวะผู้นำดิจิทัล ของผู้บริหารวิทยาลัยอาชีวศึกษาในมณฑลกุ้ยโจว สาธารณรัฐประชาชนจีน ๒) เพื่อพัฒนารูปแบบภาวะผู้นำที่เหมาะสมกับบริบทของผู้บริหารดังกล่าว และ ๓) เพื่อประเมินความสามารถในการปรับใช้และความเป็นไปได้ของรูปแบบที่นำเสนอ กลุ่มตัวอย่างประกอบด้วยครูจำนวน ๒๐๕ คนสำหรับการตอบแบบสอบถาม ผู้บริหารจำนวน ๑๔ คนสำหรับการสัมภาษณ์แบบกึ่งโครงสร้าง และผู้เชี่ยวชาญจำนวน ๑๒ คนสำหรับการประเมินรูปแบบ เครื่องมือที่ใช้ในการวิจัย ได้แก่ ๑) แบบสอบถาม ๒) แบบสัมภาษณ์กึ่งโครงสร้าง และ ๓) แบบประเมินรูปแบบ วิเคราะห์ข้อมูลโดยใช้ค่าร้อยละ ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน และการวิเคราะห์เนื้อหา

เพื่อตอบสนองต่อการขาดแคลนรูปแบบภาวะผู้นำที่ละเอียดอ่อนต่อบริบทสำหรับผู้บริหารวิทยาลัยอาชีวศึกษาในเขตพื้นที่ตะวันตกที่พัฒนาน้อยกว่าของจีน งานวิจัยนี้ได้สร้างรูปแบบการพัฒนาภาวะผู้นำห้ามิติซึ่งประกอบด้วยมาตรการเชิงปฏิบัติจำนวน ๓๓ มาตรการ ดังนี้ ภาวะผู้นำด้านสารสนเทศ ๗ มาตรการ (ค่าเฉลี่ย = ๓.๗๒, ส่วนเบี่ยงเบนมาตรฐาน = ๑.๐๒) ภาวะผู้นำการเปลี่ยนแปลง ๖ มาตรการ (ค่าเฉลี่ย = ๓.๗๓, ส่วนเบี่ยงเบนมาตรฐาน = ๑.๐๕) ภาวะผู้นำเชิงจริยธรรม ๖ มาตรการ (ค่าเฉลี่ย = ๓.๗๖, ส่วนเบี่ยงเบนมาตรฐาน = ๐.๙๙) ภาวะผู้นำเชิงนวัตกรรม ๗ มาตรการ

(ค่าเฉลี่ย = ๓.๗๔, ส่วนเบี่ยงเบนมาตรฐาน = ๑.๐๓) และภาวะผู้นำดิจิทัล ๗ มาตรการ (ค่าเฉลี่ย = ๓.๗๒, ส่วนเบี่ยงเบนมาตรฐาน = ๑.๐๐) โครงสร้างของรูปแบบ (ภาพที่ ๔.๑) นำเสนอห้ามติที่เชื่อมโยงกันด้วยความสัมพันธ์เชิงส่งเสริมซึ่งกันและกัน โดยภาวะผู้นำเชิงจริยธรรมทำหน้าที่เป็นรากฐานเชิงบรรทัดฐาน และภาวะผู้นำดิจิทัลทำหน้าที่เป็นตัวเสริมพลังทางเทคโนโลยี

การประเมินโดยผู้เชี่ยวชาญยืนยันว่ารูปแบบมีความสามารถในการปรับใช้สูง (ค่าเฉลี่ย = ๔.๔๒) และมีความเป็นไปได้สูง (ค่าเฉลี่ย = ๔.๒๑) โดยภาวะผู้นำดิจิทัลได้รับคะแนนความสามารถในการปรับใช้สูงที่สุด (ค่าเฉลี่ย = ๔.๕๑) รูปแบบนี้เป็นกรอบงานที่ละเอียดอ่อนต่อบริบท ซึ่งสามารถจัดการกับจุดเชื่อมสามประการ ได้แก่ การขาดแคลนทรัพยากร ความหลากหลายทางวัฒนธรรม และการเปลี่ยนแปลงทางดิจิทัล นอกจากนี้ รูปแบบยังมีส่วนช่วยต่อทฤษฎีภาวะผู้นำด้วยการแสดงให้เห็นว่าค่านิยมแบบขงจื้อ-กลุ่มนิยมเป็นตัวปรับการแสดงออกของโครงสร้างภาวะผู้นำที่มาจากตะวันตก และยังเป็นเครื่องมือวินิจฉัยที่สามารถนำเข้าไปสำหรับการกำกับดูแลการศึกษาอาชีวศึกษาในบริบทของประเทศในอาเซียนที่คล้ายคลึงกัน

คำสำคัญ: รูปแบบภาวะผู้นำ การพัฒนารูปแบบ วิทยาลัยอาชีวศึกษา

Acknowledgement

The completion of this dissertation marks not only an academic milestone but also the culmination of countless days and nights of unrelenting effort. I have travelled the roads between Duyun and Guiyang, Duyun and Nanning, Duyun and Kunming, Kunming and Bangkok, Nanning and Bangkok, Guiyang and Bangkok—more times than I can count. The karst peaks flashing past the high speed train windows, the sea of clouds seen from airplane portholes—these have witnessed the unwavering academic pursuit of a vocational educator who left a rural village in central Shaanxi and has served on the front lines of Guizhou’s vocational education for two decades. And it was in a Bangkok apartment late at night, with the scattered lights of the Chao Phraya River glowing outside the window and a mountain of literature and data piled on the desk, that the final words of this dissertation were written. This foreign city bore the most intense periods of reflection and the longest hours of writing throughout my doctoral journey. Here, I wish to express my deepest gratitude, in the most sincere and unadorned words, to all who have illuminated this path.

My heartfelt thanks go to my supervisors—Dr. Pachara, Dr. Chen Jianlu, and others. From the meticulous deliberation over the dissertation topic, to the layered construction of the research framework, to the careful annotations in the margins of my drafts, you have guided me forward with rigorous scholarship and a generous mentoring spirit. Whenever I was entangled in the tensions between theory and reality, or lost in the jungle of data and literature, you always managed to clear the clouds with your insights and rekindle my confidence with your encouragement. You have not only taught me how to conduct research but also instilled in me the understanding of the academic mission to “root education in the soil of China.” This bond between teacher and student is among the most precious gifts of my academic life.

I am sincerely grateful to the faculty and colleagues of the Graduate School at Bansomdejchaopraya Rajabhat University. Your professional support and warm care made the journey of studying abroad feel less solitary despite the distance. I also extend my thanks to the experts, administrators, and teachers at higher vocational

colleges across Guizhou Province. Despite your busy schedules, you kindly consented to interviews, completed questionnaires, and participated in evaluations, thereby infusing this study with the most vivid practical wisdom. As a veteran who has worked on the Guizhou vocational education front for two decades, I am deeply aware of the difficulties faced by grassroots institutions, and I feel even more keenly the weight of your trust. It is my hope that this research lives up to that trust.

I am grateful to my fellow students and close friends. During late night layovers at stations such as Guiyang North and Nanning East, and in the early mornings at Suvarnabhumi Airport in Bangkok, it was your encouraging messages that accompanied me. The debates on research methods, the candid discussions on the future of vocational education, and the moments of mutual support have all crystallised into the warmest source of strength along this journey.

My deepest gratitude is reserved for my parents. You are the most unassuming farmers on the yellow earth of central Shaanxi. All your lives you have worked the wheat fields, and with your calloused hands you lifted me up and sent me out of the Guanzhong Plain. Though you are not highly literate, you taught me the most precious kind of literacy: honesty, resilience, and gratitude. My father often said, “Study is the sickle that changes one’s destiny.” My mother always saved the best apples for me to enjoy when I returned home for the New Year. More than thirty years ago, you walked me to the entrance of our cave dwelling to start school. More than thirty years later, I finished writing this dissertation in my rented Bangkok apartment, thousands of kilometres away. This has been a relay across the Qinling Mountains—you placed all your hope in me, and now it has finally blossomed and borne fruit. This dissertation is the realisation of the dream of schooling that I have accomplished on your behalf.

To my daughter, now a fourteen year old in her second year of middle school: during the six years when you needed your father’s company the most, I missed countless parent teacher meetings, weekends, and school holidays. While you moved from primary to middle school, I progressed from master’s to doctoral studies, each of us hunched over our own desks, growing in our own ways. I still remember

you asking, “Dad, when will you finally be done with school?” I could not answer you then. Now, in my twentieth year of work, I can finally tell you: Dad is finished, but your journey is still long. Thank you for understanding my absence with such maturity. Thank you for showing me that the best education is not through precept, but by witnessing each other’s efforts.

And to my wife—every word of this dissertation bears the imprint of your silent sacrifice. You gave the best years of your life to wait for me during my six years of doctoral studies. When I flew to Bangkok, you stayed home alone. When I worked late into the night, you quietly placed a cup of warm tea by my desk. When I lay awake anxious over the dissertation, you simply said, “It’s all right, just take your time.” You have your own career, yet you shouldered the vast majority of household chores. You longed for companionship, yet you never once complained about my absence. You cared for my ageing parents in my stead and accompanied our daughter through the sensitive and rebellious years of early adolescence. You kept the household running so seamlessly that I could concentrate on my studies in a foreign land without distraction. You never asked when I would graduate, yet before every departure, you silently helped me pack my suitcase. Now that this dissertation is complete, I know you are happier than I am, yet you only said, “At last, you can have a good rest.” Thank you for propping up my most extravagant dream in the most unassuming way.

There are many other mentors, leaders, and friends whose names I cannot list individually—those who debated vocational education reform with me over tea in a teahouse by the Baizi Bridge in Duyun; who helped me proofread questionnaires in the waiting hall of Guiyang North Railway Station; my father, who listened quietly to my incomprehensible talk of the dissertation while we sat on the edge of the heated kang in our old home in the Guanzhong countryside; and my wife, who accompanied me through countless sunsets via video call, watching from the balcony of our Bangkok apartment as I sat on mine. Twenty years in vocational education, six years of doctoral study—these moments, scattered like stars, have nevertheless lit the long road of my academic pursuit.

Finally, I dedicate this achievement to Duyun in Guizhou, where I have worked for two decades; to my beloved vocational education career; and to my parents, far away in the rural village of central Shaanxi, as well as to my wife and daughter, who have always stood behind me. Duyun—this small Guizhou city embraced by the Jian River—is where my professional career began and where my academic research found its origin. The rural village in central Shaanxi—nestled among the wheat fields of the Guanzhong Plain—is where my life began and will forever remain the spiritual homeland to which I belong. Bangkok—this foreign capital through which the Chao Phraya flows—is where I completed this dissertation and will forever occupy a special place as a coordinate on my academic journey. Twenty years—my hair has turned from black to grey, my path has led from the lectern to the library, and I have witnessed generations of vocational students journey from their rural homes to the wider world, while also experiencing firsthand the perseverance and breakthroughs of institutional leaders under resource constraints. It is my hope that this research contributes a glimmer of light to the development of vocational education in western China, and that the efforts of my generation of vocational educators will ultimately converge into the great tide of China's educational modernisation.

Luo Shanchi

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Chapter 1

Introduction

Rationale

Guizhou's vocational education system has reached a pivotal moment, moving from a phase of enrollment growth into one focused on quality enhancement. The province lies in southwestern China and has three notable features: a multi ethnic population, wide urban rural gaps, and a rapidly growing digital economy sector. Yet its vocational colleges face three linked governance challenges—called the “triple nexus” in this research—that reduce institutional effectiveness and threaten long term sustainability.

First, resource constraints are systemic. Per-student funding in 2022 was ¥12,000, only 66% of the national average. Only 58% of instructors hold “dual qualified” status (both academic and industry experience), compared to 65% nationally. Equipment value per student is ¥6,800 versus ¥8,200. Such deficits directly constrain what institutions can accomplish in terms of comprehensive development. Second, socio cultural complexity. Guizhou ranks high on collectivism, moderate on power distance, and contains multiple ethnic groups alongside urban rural differences. Consequently, leadership models borrowed from elsewhere seldom work here; effective leadership must grow out of the province's own social and cultural networks. Third, a structural mismatch exists between education and industry. National policies such as “Digital Economy” and “Rural Revitalization” push local industries—big data, new energy, mountain agriculture—to change quickly. Yet college curricula and program structures frequently fail to keep pace. Only about 54% of vocational programs align well with industry demand, and only 15% of school industry partnerships produce useful outcomes. This structural disconnect between educational supply and regional economic needs demands urgent attention.

In this challenging environment, college administrators serve as key “institutional actors.” Their leadership philosophy and everyday behavior directly shape how efficiently resources are allocated, how adaptively the organization responds to change, and—ultimately—the quality of education delivered. However, most existing studies on leadership in vocational colleges focus either on macro level policy analysis or on applying generic leadership theories developed elsewhere. What is missing is a deep, practice oriented model—comprehensive and context sensitive—that is tailored to administrators who must manage three overlapping challenges at once: resource scarcity, cultural diversity, and digital transformation, all within Guizhou’s unique setting.

This study therefore addresses a clear intellectual and practical need: How can a leadership development model be built that draws on international leadership theory yet remains firmly rooted in Guizhou’s own socio-economic and cultural conditions—and that effectively meets the province’s urgent demand for high-quality vocational education? The proposed model aims to answer three core, context driven questions: Under resource constraints, which leadership styles optimize internal governance? In a culturally diverse environment, how do leadership behaviors build consensus and mobilize the organization? Facing technological disruption, how should leaders guide their institutions through digital transformation and encourage innovation?

Developing such a model yields three anticipated contributions. For policymakers, it provides an evidence based, locally adaptive leadership competency framework—directly useful for initiatives such as “Skills Guizhou” and for shaping leadership development policies in vocational colleges. For vocational institutions and their administrators, it offers a systematic blueprint for self assessment and professional growth, guiding leaders to shift from being “administrative managers” toward becoming “educational ecosystem builders” and “organizational change catalysts.” For scholarship, it fills a notable gap: there are very few contextualized leadership models for vocational colleges in China’s western ethnic regions. This

study contributes an empirical case to the ongoing discourse on the “localization” and “contextualization” of leadership theory.

Theoretical and Contextual Research Gap

Although leadership research within higher education and vocational education has expanded substantially over the past two decades, several important theoretical and contextual limitations remain insufficiently addressed.

First, existing studies predominantly examine leadership dimensions independently, such as Transformational leadership, Ethical leadership, Innovative leadership, or Digital leadership separately. However, vocational college administrators frequently encounter overlapping institutional pressures involving policy reform, technological transformation, organizational innovation, and ethical governance simultaneously. Under such conditions, existing leadership theories provide limited explanation regarding how different leadership dimensions interact dynamically within complex educational environments.

Second, mainstream leadership theories are primarily developed within Western organizational contexts characterized by relatively decentralized governance systems and lower power-distance cultures. In contrast, vocational colleges in China operate within institutional structures shaped by collectivism, Confucian ethics, administrative hierarchy, and strong policy orientation. Under such conditions, leadership effectiveness may depend on contextual factors insufficiently emphasized in conventional Western leadership frameworks.

Third, current research concerning vocational education leadership in China has largely focused on administrative efficiency and policy implementation outcomes, while comparatively limited attention has been given to leadership as an adaptive capability responding simultaneously to digital transformation, resource constraints, and organizational uncertainty.

Finally, relatively few studies have systematically examined leadership practices within less-developed western provinces such as Guizhou, where vocational colleges continue to face uneven modernization, industrial restructuring pressure, and limited educational resources. Consequently, existing leadership theories may

not fully explain the governance realities experienced by administrators within these institutions.

Addressing the identified problems and knowledge gaps, this study developed a leadership style model for administrators in Guizhou's vocational colleges through rigorous empirical research. Instead of viewing leadership as a set of separate competencies, this study frames leadership development as a context-sensitive organizational capability—shaped simultaneously by institutional transition, regional inequality, governance structure, and digital transformation. Thus, the proposed leadership model does more than identify desirable leadership traits; it also explains how multiple leadership dimensions interact under conditions of educational modernization and organizational uncertainty.

Research Questions

To address the identified gaps, this study seeks to answer the following three research questions:

1. What are the current levels—as perceived by faculty—of the five leadership styles (Information, Transformational, Ethical, Innovative, and Digital) among administrators in Guizhou's vocational colleges?
2. What constitutes a contextually appropriate leadership style development model for these administrators?
3. To what extent is the proposed model adaptable and feasible for implementation in Guizhou's vocational colleges?

Objectives

1. to diagnose the current levels of leadership style among administrators in Guizhou's vocational colleges;
2. to develop a leadership style model tailored to these administrators;
3. to verify the model's adaptability and feasibility in practice.

Scope of the Research

Population and the Sample Group

Population

This study targets a population of 421 teachers drawn from 7 vocational colleges across Guizhou Province.

The Sample Group

Following Krejcie and Morgan's (1970) sample size determination table, a sample of 205 teachers was selected from the vocational colleges in Guizhou using stratified random sampling combined with simple random sampling.

The interviewee

14 administrators from vocational colleges in Guizhou participated as interviewees in this research. The selection criteria were as follows:

1) At least five years of work experience in an administrative role at a Guizhou vocational college; 2) Possession of a certificate in educational administration, leadership, or innovation; 3) A master's degree or higher.

Expert group

A panel of 12 experts from vocational colleges in Guizhou evaluated the model's suitability and feasibility. The selection criteria were as follows: 1) at least five years of administrative experience in a Guizhou vocational college; 2) possession of a certificate in educational administration, leadership, or innovation; 3) a master's degree or higher.

Variables

Drawing on the theoretical and empirical literature reviewed in Chapter 2, this study identified five core leadership dimensions: 1) Information leadership, 2) Transformational leadership, 3) Ethical leadership, 4) Innovative leadership, 5) Digital leadership.

Time

March 2025 - February 2026

Definition of Terms

Information leadership means treating information as a strategic resource. It involves using data to make decisions, sharing information openly across levels, and helping people get better at working with data. The focus is on governance and evidence—not on which software or tool you use. In this study, Information leadership is strictly limited to data governance, transparent sharing, and data-driven culture. It does not include the adoption of digital technologies or leading digital transformation, which belong to Digital leadership. This boundary ensures analytical clarity between the two dimensions.

Transformational leadership refers to motivating people to pursue shared goals beyond their immediate self interests. Leaders achieve this by articulating a clear future vision, setting a moral example, supporting individuals personally, and challenging followers to think critically.

Ethical leadership means doing the right thing and making sure others do too. It involves personal honesty, fairness, transparent rules, and concern for the community. The focus is on value based governance.

Innovative leadership refers to creating an environment in which organizational members feel psychologically safe to experiment with novel approaches, even when occasional failure occurs. It involves giving people time and space to experiment, learning from mistakes, and adapting when things change. The focus is on learning and adaptation, especially when resources are tight.

Digital leadership means leading an organization through digital change. It involves having a clear digital strategy, building a culture that shares knowledge and collaborates online, and using digital tools to improve teaching and administration. In this study, Digital leadership explicitly excludes routine data governance (that is Information leadership) and focuses on technology-enabled transformation, including digital strategy formulation, virtual collaboration, digital ethics, and adaptive use of evaluation results.

The term administrators specifically refers to individuals occupying middle- and senior-level management positions within vocational colleges

The study covered seven vocational colleges in Guizhou: Guizhou Industry Polytechnic College, Guiyang Healthcare Vocational University, Guizhou Vocational College of Economics and Business, Guizhou Vocational College of Finance and Economics, Guizhou Vocational College of Culture and Tourism, Guizhou Technical College of Machinery and Electricity, Qiannan Polytechnic for Nationalities.

Advantages

This contextualized leadership model makes important contributions in three areas:

Policy and Practical Application: For provincial and institutional policymakers, this research provides an evidence-based, locally-adaptive leadership competency framework. The framework directly informs human resource development strategies within Guizhou's vocational education sector. It also offers actionable guidance for specific initiatives, including the "Skills Guizhou" action plan and leadership development programs tailored to college administrators.

Institutional Leadership Development: For vocational colleges and their administrative leaders, the proposed model serves as a comprehensive diagnostic and developmental blueprint. It moves beyond generic leadership advice by offering a structured, context-sensitive tool for self-assessment and professional growth. This can empower administrators to consciously transition their roles from operational managers towards becoming strategic "educational ecosystem architects" and "agents of organizational innovation," thereby enhancing institutional resilience and adaptability.

Theoretical and Scholarly Contribution: This study constructs a composite leadership development model tailored to the contextual realities of vocational colleges in Guizhou. Conceptually, the model moves beyond single-theory applications by integrating key propositions from transformational, servant, and distributed leadership. Leadership development is conceptualized as a synergistic process operating through three interrelated mechanisms: vision-driven direction, empowerment-oriented governance, and cultural adaptation.

The model also incorporates two theoretical innovations: first, it explicitly accounts for regional cultural characteristics (high collectivism, moderate power distance) to ensure global leadership theories are contextually adapted; second, it reconceptualizes leadership as a dynamic capability that links strategic planning with situational responsiveness, rather than a static set of traits or behaviors. These innovations are grounded in cross-cultural, dynamic, and complexity leadership perspectives and are elaborated in Chapter 2.

Research Framework

From the theoretical and empirical literature, five characteristics of administrators' leadership style emerged:

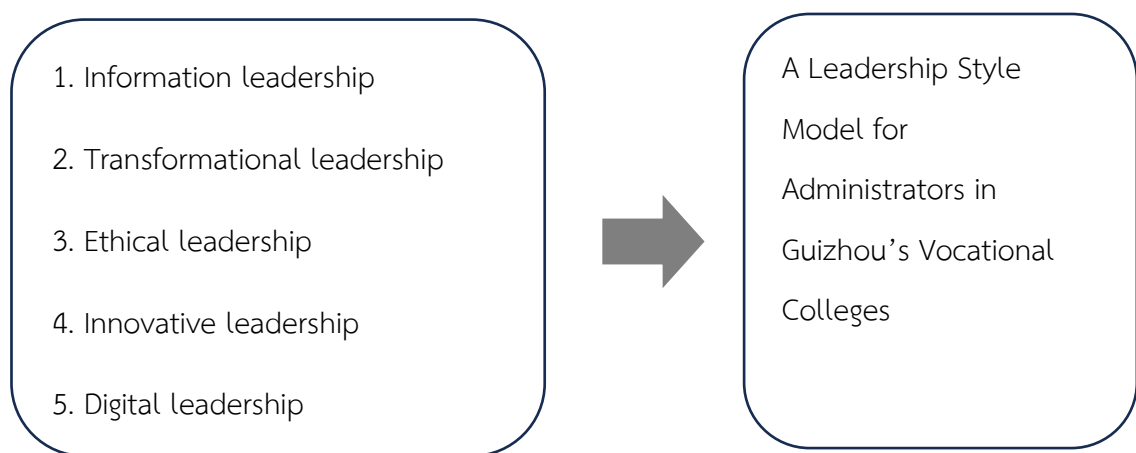


Figure 1.1 Research Framework

Chapter 2

Literature Review

In view of the unique needs of higher vocational colleges in Guizhou Province regarding resource constraints, rural revitalization, and digital transformation, this study integrates the theories of Transformational leadership, servant leadership, and distributed leadership, emphasizing vision leadership, cultural embedding, and dynamic adaptation.

1. Concept of Educational Administration
2. Theoretical Foundations of Leadership
3. Five Core Leadership Styles
4. Context of Vocational Colleges in Guizhou
5. Conceptual Model Development
6. Related Research
7. Theoretical Propositions

The details are as follows.

Concept of Educational Administration

The theoretical development of educational administration has evolved from experience summarization to scientific paradigm exploration, from single rationality to value rationality, and from Western transplantation to indigenous construction. By integrating classical theories from Western scholars such as Kotter, Bush, Fullan, and Hallinger with indigenous research by Chinese scholars such as Li Xu, and Wu Dongfang, this section reveals educational administration as a complex adaptive system characterized by multiple paradigms, requiring both the technical rationality of management tools and the value rationality of ethical care.

Kotter (1996), in his seminal work *Leading Change*, proposed an eight-stage model of organizational transformation, operationalizing change leadership into

actionable steps through strategies such as creating urgency and forming powerful coalitions.

Bush (2003) systematically classified six theoretical paradigms of educational management, ranging from formal and collegial to political and subjective models, each implying distinct decision-making logics and resource allocation mechanisms.

Fullan (2007) asserted that sustainable improvement requires simultaneous progress in policy coherence, reculturing, and capacity building.

Tschannen-Moran (2004) grounded in trust theory, demonstrated that trust-based relationships based on openness and reliability reduce internal transaction costs within educational organizations.

Biesta (2010) critiqued the dominance of measurement-oriented educational systems and argued that good education should support subjectification, democratic participation, and human flourishing rather than merely measurable performance outcomes. Instead, he emphasized the broader purposes of education, including qualification, socialization, and subjectification, thereby challenging purely instrumental rationality in educational governance. From this perspective, educational leadership and management should support teacher agency, student autonomy, and democratic educational values rather than focusing exclusively on measurable performance indicators.

Hallinger (2011) introduced the Leadership for Learning integrated model, emphasizing that leadership must be embedded in the open system of schools and their broader community environment.

Robinson (2011) through a meta-analysis, found that student-centered leadership, which focuses on instructional improvement, has a significantly larger effect size (0.42) on student outcomes than general management practices.

Griffiths (2012) championed theoretical pluralism, arguing that educational management paradigms should be selected based on the nature of the problem at hand.

Li Xu and Wang Jiao (2019) traced the transformation of Chinese educational administration from administrative experience summarization (1949–1980) to scientific paradigm exploration (1990–2010).

Wu Dongfang & Si Xiaohong (2019) argued that knowledge production in educational administration must balance technical rationality (e.g., performance evaluation tools) and value rationality (e.g., educational equity).

Li Xu & Hou Huaiyin (2022) constructed a dynamic model for educational resource allocation, arguing that allocation must adhere to both educational principles and social equity.

From a contextual perspective, educational administration is essentially an interdisciplinary field of practice that aims to enhance the effectiveness of educational systems and achieve holistic individual development through systemic resource allocation, organizational change, and institutional innovation. At the theoretical level, it integrates multiple paradigms, including scientific management, humanistic, and cultural-constructionist perspectives. At the methodological level, it emphasizes differentiated strategies guided by contingency theory. This understanding provides the methodological foundation for constructing a context-sensitive leadership model in this study.

Theoretical Foundations of Leadership

This study adopts a pluralistic theoretical integration perspective, selecting five major leadership theories as its analytical framework, Transformational leadership, servant leadership, distributed leadership, cross-cultural leadership, and dynamic/complexity leadership theory. These five theories are not merely listed but are strategically chosen for their explanatory power regarding the complex, multi-faceted nature of leadership required in resource-constrained, culturally diverse, and rapidly digitizing environments.

Concept of Leadership

In this study, leadership is defined as an interactive process within organizational contexts through which individuals or collectives are influenced in

their cognition, attitudes, and behaviors to guide them toward shared goals and achieve exceptional performance. It encompasses not only formal positional authority but, more critically, informal influence, vision shaping, and value guidance. For administrators in Guizhou's vocational colleges, leadership is concretely manifested as the capacity to integrate policy mandates, industrial demands, and educational missions within complex environments characterized by resource scarcity, cultural diversity, and rapid change, thereby driving organizational adaptation and innovation.

Integrated Theoretical Framework

Transformational leadership (Bass, 1985). This theory forms a foundational pillar, positing that effective leaders inspire followers to transcend their self-interests for a collective mission. Through Idealized Influence, Inspirational Motivation, Intellectual Stimulation, and Individualized Consideration, leaders raise followers' levels of maturity, motivation, and morality. In the context of this study, Transformational leadership provides the core theoretical underpinning for driving institutional "high-quality development" as mandated by national policy.

Servant Leadership (Greenleaf, 1977). Servant Leadership offers a crucial ethical and relational counterpoint by inverting the traditional leader-follower hierarchy. It asserts that the primary role of a leader is to serve, to prioritize the growth, well-being, and empowerment of followers and the community. This theory directly enriches the conceptualization of Ethical leadership, infusing it with a proactive, other-oriented ethic of care and stewardship.

Distributed Leadership (Spillane et al., 2004). Moving beyond the "heroic leader" paradigm, distributed leadership conceptualizes leadership as a practice stretched over the social and situational context of an organization. It views leadership as an emergent property of interactions among leaders, followers, and their situation. This perspective supports the practical implementation of all leadership styles by suggesting that effective leadership is often a collective endeavor rather than an individual one.

Cross-cultural Leadership (Hofstede, 1984; GLOBE study). This body of research argues that leadership perceptions, behaviors, and effectiveness are profoundly moderated by cultural value dimensions such as power distance, individualism-collectivism, and uncertainty avoidance. It grounds the entire model in Guizhou's specific cultural fabric, characterized by higher collectivism and particularistic social relations, ensuring the proposed styles are not merely transplanted Western constructs.

Dynamic/Complexity Leadership Theory (Uhl-Bien et al., 2007). This framework distinguishes between administrative leadership (managing operational complexity) and adaptive leadership (fostering innovation and learning in response to emergent challenges). It informs the innovative and Digital leadership dimensions by emphasizing agility, experimentation, and learning, providing the conceptual tools to understand how leaders can navigate uncertainty, promote systemic innovation, and manage the tension between bureaucratic stability and disruptive change.

Theoretical Integration Contributions (originally from Chapter 1): This study transcends the limitations of a single theoretical paradigm to achieve the organic integration of multiple leadership theories. The core innovation of the model lies in constructing a "five-dimensional synergy, contextually moderated, dynamic development" analytical framework. Specifically, transformational and servant leadership provide the motivational and ethical impetus; distributed leadership offers a realistic structural lens for enactment; cross-cultural leadership ensures contextual calibration; and dynamic/complexity leadership theory equips the model to deal with volatility and change. This integrated theoretical foundation not only responds to the inherent demand of leadership research to evolve from singular paradigms to compound, context-sensitive paradigms but also lays a solid theoretical foundation for subsequent empirical testing.

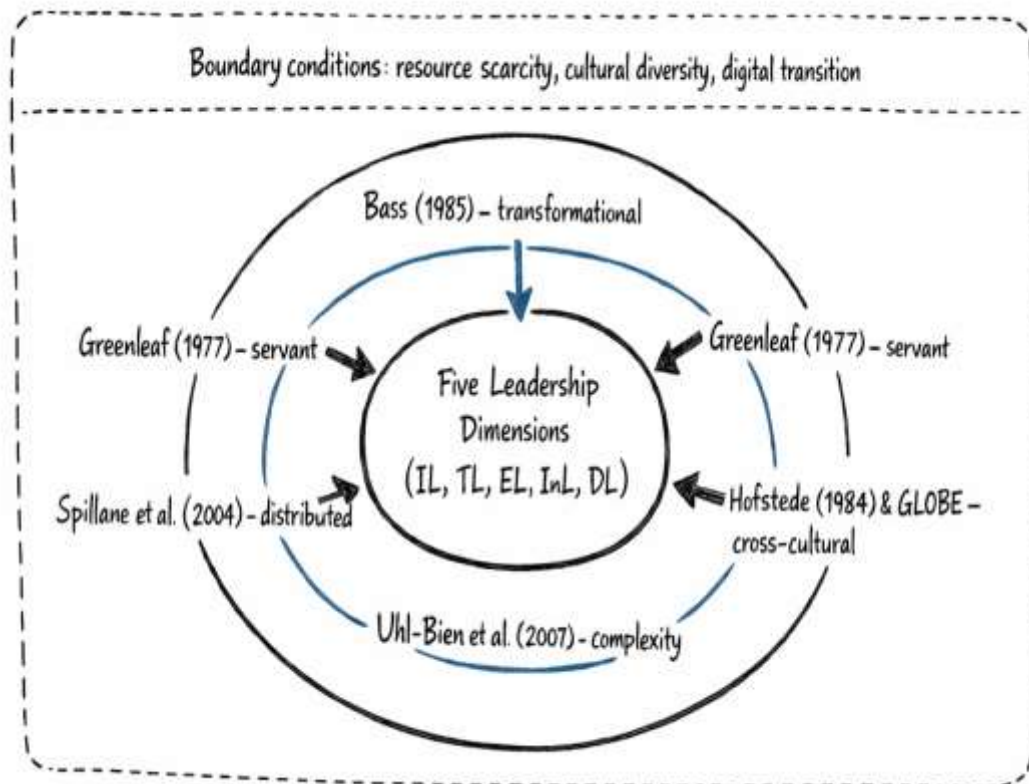


Figure 2.1 A Layered View of the Model's Theoretical Grounding

Figure 2.1 shows how the five leadership dimensions are each informed by one or more theoretical traditions, while the whole model sits within the specific contextual realities of Guizhou's vocational colleges. The diagram is not meant to imply strict one-to-one mapping, but rather to visualize the theoretical pluralism that guided the model construction.

Integrated Theoretical Framework for Vocational College Leadership in Guizhou

While acknowledging leadership as a core driver of organizational adaptation in complex environments (Yukl, 2012) and drawing upon integrative leadership theories (e.g., Bass's Transformational leadership, Brown's Ethical leadership, Greenleaf's servant leadership) and situational adaptation perspectives, this study shifts its primary focus from theoretical derivation to the diagnosis of and response to

Guizhou's concrete contextual challenges. Importantly, the purpose of this study is not merely to identify desirable leadership characteristics but to explain how multiple leadership dimensions interact under conditions of institutional transition, regional disparity, and digital transformation. Consequently, this research attempts to move beyond fragmented leadership analysis toward a more integrated and context sensitive understanding of vocational education leadership within western China. Building on China's national policy framework for the high-quality development of vocational education, this study constructs a composite leadership development model that is specifically tailored to the contextual realities of vocational colleges in Guizhou Province. Rather than relying on a single leadership paradigm, the model integrates key propositions from Transformational leadership (Bass, 1985), servant leadership (Greenleaf, 1977), and distributed leadership (Spillane et al., 2004). This integration moves beyond single-theory applications toward a context-sensitive and functionally synergistic leadership framework. Leadership development is conceptualized as a process operating through three interrelated mechanisms: vision-driven direction, empowerment-oriented governance, and cultural adaptation.

From a cultural-contextual perspective, this study incorporates the moderating role of regional cultural characteristics, drawing on Hofstede's (1984) cultural dimensions and the GLOBE cultural clusters framework (House et al., 2004). Specifically, it examines how Guizhou's profile of "high collectivism-moderate power distance" conditions leadership effectiveness in vocational education settings. By introducing a cultural "decoding-recoding" mechanism informed by localization research (Yang, 2020), the study provides a structured approach for embedding global leadership theories into the organizational practices of ethnically diverse and economically transitional regions.

Furthermore, grounded in dynamic leadership theory (Yukl, 2012) and complexity leadership theory (Uhl-Bien et al., 2007), the proposed model advances a dual-capability perspective that links strategic planning with situational responsiveness. Through mechanisms of environmental scanning and adaptive organizational learning, leadership is conceptualized not as a static set of traits or

behaviors, but as a dynamic capability that supports continuous improvement under conditions of resource constraints, digital transformation, and institutional change. In doing so, this study contributes to the contextualization of leadership theory in vocational education and offers empirical insights into leadership development in underrepresented regional and cultural contexts.

Concept of Leadership Style

The concept of leadership style has a long history in organizational research. Unlike grand theories that address the essence or contingency of leadership, the notion of style directs attention to observable behavioral patterns: how leaders make decisions, interact with subordinates, and allocate attention across tasks. Yukl (2012) defines it concisely as “the relatively stable pattern of behavior that characterizes a leader’s approach to guiding others.”

Early researchers attempted to classify styles into discrete categories. Lewin, Lippitt, and White (1939) proposed three: autocratic, democratic, and laissez-faire. Blake and Mouton (1964) developed the managerial grid with “concern for production” and “concern for people” as axes, yielding five styles. Likert (1967) described four systems ranging from purely top-down to fully participative. Bass (1985) then introduced the transformational-transactional distinction, which dominated the field for decades. However, contemporary scholarship suggests that in today’s complex organizations, effective leadership involves switching between multiple styles depending on situational demands. School leadership research, for example, shows that principals fluidly combine different styles (Hallinger & Heck, 1996).

Rather than fitting administrators into a single style category, this study measures leadership across five dimensions—Information, Transformational, Ethical, Innovative, and Digital. The underlying logic is contextual: resource constraints privilege Information and Innovative leadership; cultural diversity and hierarchy call for Ethical and Transformational leadership; and digital transformation requires Digital leadership. The resulting dimensional profile, not a simple label, is designed to better inform development efforts.

Five Core Leadership Styles

Grounded in emerging leadership theories, this study selects Information leadership, Transformational leadership, Ethical leadership, Innovative leadership, and Digital leadership as its core analytical variables. This selection is guided by a systematic integration of theoretical, policy, and contextual rationales. Theoretically, these five dimensions represent key extensions of contemporary leadership research toward a compound and context-sensitive paradigm, collectively forming an integrated competency system for addressing complex governance environments. From a policy perspective, they directly align with the national strategy of “high-quality development of vocational education” and Guizhou’s regional agendas of “Digital Economy” and “Rural Revitalization.” Each dimension corresponds to critical policy implementation capacities: digital governance, organizational change facilitation, and ethical-value foundations. Through contextual diagnosis, this combination aims to respond precisely to three major practical challenges faced by vocational colleges in Guizhou: resource constraints, cultural diversity, and developmental mismatch. By elucidating the inherent synergistic mechanisms among the variables, for instance, how digital transformation relies on value consensus and ethical trust, supported by continuous innovation and data-driven insight, this study seeks to construct an integrative analytical framework that balances theoretical explanatory power with practical guidance.

1. Information leadership

Information leadership refers to the capacity to govern information as a strategic asset, emphasizing data-driven decision-making mechanisms and the systematic enhancement of organizational digital literacy.

Definitions and core components

Huvila (2014, p.663) proposed that Information leadership includes leadership over information resources and infrastructures, whereas knowledge leadership focuses on social knowledge processes, knowledge acquisition, and organizational learning, arguing that Information leadership is a prerequisite for knowledge leadership. Tredinnick and Laybats (2022, p.89) identified several critical dimensions

of Information leadership in contemporary organizations, including leveraging information opportunities, articulating vision and strategy, championing change, and cultivating an organizational culture that supports information and knowledge management.

Lloyd (2010) emphasized that information literacy is the ability to self-assess and reflect on the information environment, continuously developing over time. Kaur and Hirudayaraj (2021) explored how a leader's emotional intelligence fosters organizational learning, highlighting the importance of emotional intelligence within Information leadership.

Taken together, Information leadership is a multidimensional paradigm through which leaders govern information as a strategic asset, establish data-driven decision-making mechanisms, promote transparent information sharing across all organizational levels, systematically implement initiatives to enhance organizational digital literacy, support the integration of technological tools into pedagogical and operational innovation, build governance frameworks to ensure information quality and security, and cultivate a data-driven learning culture. This transforms information capabilities into a sustainable competitive advantage, optimizes operational effectiveness, and guides systemic transformation.

From a contextual perspective, the key components of Information leadership encompass leadership over information resources and infrastructures, emotional intelligence, knowledge-oriented leadership, information literacy, and management capabilities.

Summary of Information leadership in the Guizhou context

Information leadership, as operationalized in this study, focuses on three context-sensitive practices: establishing shared data platforms, delivering practical digital literacy training, and promoting evidence-based decision-making (Huvila, 2014; Tredinnick & Laybats, 2022). Unlike corporate settings, Guizhou's vocational colleges face tight budgets, uneven internet access, and a culture where information is often equated with power. Therefore, the measurement (Table 4.3) and development measures (Table 4.9) are deliberately down-to-earth and actionable.

In this study, Information leadership is strictly limited to the governance of information as a strategic asset—data-driven decision-making, transparent information sharing, information quality and security, and cultivating a data-driven culture. It does not include the adoption of digital technologies or leading digital transformation, which belong to Digital leadership. This boundary ensures analytical clarity between the two dimensions.

2. Transformational leadership

Transformational leadership refers to the process of stimulating followers' higher-level motivations to pursue organizational goals. Bass's (1985) four-dimensional model—idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration—has become a classic paradigm. In the Chinese context, Li and Shi (2005) identified a distinct “moral modeling” dimension that reflects the Confucian logic of “leading by virtue.” In this study, Transformational leadership encompasses vision articulation, moral example setting, personalized care, intellectual stimulation, and leadership potential identification.

Definitions and core components

Burns (1978, p.20) first introduced the concept, describing Transformational leadership as a process in which leaders and followers elevate each other's moral and motivational levels. Building on this foundation, Bass (1985, p.19) systematically developed the framework, identifying the four core dimensions mentioned above. Bass and Riggio (2006, p.3) further elaborated on these dimensions, highlighting their effects on organizational performance, employee satisfaction, and innovation capacity.

Lowe, Kroeck, and Sivasubramaniam (1996, p.385) conducted a meta analysis that confirmed the positive correlation between Transformational leadership and employee satisfaction, organizational commitment, and performance across different cultures and organizational contexts. Subsequent research has enriched the construct. Podsakoff et al. (1990) proposed a six dimensional model by adding “setting high performance expectations” and “fostering the acceptance of group goals.” Avolio and Bass (1995) introduced “supportive leadership” as a key aspect of

individualized consideration, emphasizing the leader's role in providing support and care for employees.

In the Chinese cultural context, Li and Shi (2005) proposed a four dimensional model comprising moral modeling, charisma, articulating vision, and individualized consideration, underscoring the importance of moral exemplarity and vision articulation. Their meta analytic findings also indicated that idealized influence is the dimension most strongly correlated with leadership effectiveness, highlighting the importance of leaders as role models.

Taken together, the core components of Transformational leadership include: idealized influence, inspirational motivation, intellectual stimulation, individualized consideration, moral modeling, charisma, articulating vision, setting high performance expectations, fostering the acceptance of group goals, and supportive leadership. In essence, Transformational leadership is a style that emphasizes vision, innovation, and individual development.

Transformational leadership: contextual summary

In this study, Transformational leadership integrates Bass's (1985) four dimensions with Li and Shi's (2005) "moral modeling" dimension, which is specific to the Chinese context. This context sensitive integration is essential for Guizhou's vocational colleges, where hierarchical structures and collectivist norms shape how visionary and moral leadership are received. When applied locally, the model emphasizes four context anchored practices: 1) articulating a shared vision that is explicitly linked to individual teacher development, 2) demonstrating moral exemplarity in daily administrative conduct, 3) providing personalized care that respects local relational networks, and 4) stimulating intellectual growth through problem based learning. Table 4.4 presents the measurement items, and Table 4.9 lists six development measures. The low feasibility rating for "leaders lead by example rather than commanding" (Table 4.12) reflects cultural challenges in hierarchical settings where authority is traditionally exercised through directive command.

It should be noted that the core components of Transformational leadership are generally consistent across cultures, yet notable variations exist. Western scholarship has focused on idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration, while Chinese scholars have introduced dimensions such as moral modeling, charisma, and articulating vision—reflecting the unique cultural and organizational environment of China. Future research could further explore the applicability and effectiveness of these components across different cultural contexts, thereby enriching the conceptualization of Transformational leadership and expanding its theoretical scope.

One possible interpretation is that Transformational leadership may function differently across institutional environments. Within highly policy oriented vocational colleges, transformational behaviors are not exercised under conditions of complete organizational autonomy. Rather, administrators may need to balance inspirational leadership with bureaucratic accountability, policy compliance, and institutional stability simultaneously. Consequently, Transformational leadership effectiveness may depend not only on visionary capacity itself but also on leaders' ability to adapt transformational practices to structurally constrained governance environments.

Critical reflection on Transformational leadership

Although Transformational leadership remains highly influential in educational leadership research, existing studies have primarily emphasized motivational influence, vision articulation, and organizational commitment while paying comparatively limited attention to structural constraints and institutional complexity.

Within vocational colleges in western China, leadership effectiveness may depend not only on inspirational capability but also on administrators' ability to negotiate bureaucratic governance systems, policy dependency, and uneven regional development simultaneously. Under such conditions, Transformational leadership alone may be insufficient to explain how administrators respond to digital disruption, innovation pressure, and institutional transformation.

Furthermore, Transformational leadership is frequently associated with positive organizational change. However, within highly centralized governance

environments, excessive emphasis on organizational alignment and collective harmony may unintentionally constrain critical debate and experimentation. Under such conditions, Transformational leadership in vocational colleges may require contextual reinterpretation rather than direct theoretical transplantation from Western organizational settings. At the same time, contextual reinterpretation should not imply that Western leadership theories are universally inapplicable within Chinese vocational education. Rather, the effectiveness of leadership practices may depend on the degree of alignment between leadership behavior, governance structure, institutional culture, and organizational development stage. Consequently, leadership theories may operate differently across contexts not because the theories themselves are invalid, but because organizational conditions shape how leadership behaviors are interpreted, accepted, and institutionalized.

3. Ethical leadership

Ethical leadership focuses on the leader's moral role in organizational governance. Brown, Treviño, and Harrison's (2005) dual dimension model—the “moral person” and the “moral manager”—has been widely influential. Kalshoven, Den Hartog, and De Hoogh (2011) expanded the construct to seven behavioral dimensions: fairness, integrity, ethical guidance, people orientation, power sharing, role clarification, and concern for sustainability. In the Chinese cultural context, Ethical leadership aligns deeply with the Confucian tradition of “cultivating the self, regulating the family, governing the state, and bringing peace to the world.” This study covers personal integrity, procedural fairness, transparent accountability, inclusive culture, and social responsibility.

Definitions and core components

Brown, Treviño, and Harrison (2005, p.120) define Ethical leadership as “the demonstration of ethical conduct through personal actions and interpersonal relationships, and the promotion of such behavior among employees through two way communication, reinforcement, and decision making.” This definition highlights two complementary dimensions: a) the moral person—the leader's honesty, justice, and care for others—and b) the moral manager, who actively promotes ethical

behavior through role modeling and institutional design. Treviño et al. (2000) further emphasized that Ethical leadership requires a strong sense of responsibility, including transparency in behavior and openness to external scrutiny.

Kalshoven et al. (2011, p.52) extended the concept into seven behavioral dimensions: fairness, integrity, ethical guidance, people orientation, power sharing, role clarification, and concern for sustainability. In the Chinese context, Li and Shi (2005, p.74) pointed out that Ethical leadership is rooted in Confucian traditions, emphasizing values such as “moral cultivation,” “justice,” and “leading by virtue.” Within this culturally embedded framework, administrative effectiveness is not perceived as distinct from moral integrity; rather, integrity constitutes the foundational precondition for effectiveness.

Resick et al. (2006, p.347) noted that Ethical leadership has cross cultural consistency, with traits such as honesty, altruism, and integrity being universally recognized, although their specific expressions may vary across cultures.

Taken together, the core components of Ethical leadership can be summarized at three levels: personal moral virtues, ethical behavioral practices, and cultural ethical orientation. From a contextual perspective, Ethical leadership is a values based leadership style in which leaders demonstrate personal integrity and moral character, adhere to principles of fairness and justice, establish transparent accountability mechanisms, cultivate an inclusive and respectful organizational culture, ensure procedural and outcome fairness in resource allocation, and maintain altruistic concern for the community and stakeholders—thereby building an ethics based sustainable governance system.

Ethical leadership: key takeaways for Guizhou’s vocational colleges

This study follows Brown, Treviño, and Harrison’s (2005) distinction between the “moral person” (integrity, fairness, altruistic concern) and the “moral manager” (accountability systems, participatory review, individualized consideration). A context-sensitive reading of the survey results (Table 4.5) shows high ratings for personal integrity and inclusive culture but lower ratings for accountability systems and equitable resource allocation. This pattern is consistent with Confucian contexts,

where personal virtue is more salient than institutional mechanisms. The proposed model therefore pushes for institutionalizing ethics alongside personal character (Table 4.9). Ethical leadership is not merely a behavioral orientation but a leadership style that blends moral character, ethical conduct, and cultural values. In Guizhou's resource-constrained environment, this dimension also functions as a compensatory mechanism, substituting procedural fairness and transparent accountability for material incentives that are often lacking.

Critical reflection on Ethical leadership

Previous studies consistently emphasize fairness, integrity, and moral accountability as central to Ethical leadership. Nevertheless, within vocational colleges, Ethical leadership should not be interpreted solely as an individual moral orientation. In Chinese educational institutions, ethical legitimacy may also function as an institutional governance mechanism closely associated with political accountability, administrative trust, and organizational stability. Consequently, Ethical leadership may operate simultaneously as a moral expectation and a structural governance requirement.

At the same time, a strong emphasis on procedural correctness and hierarchical accountability may unintentionally reduce organizational flexibility and experimentation. This creates a potential tension: Ethical leadership strengthens institutional legitimacy while potentially constraining innovation oriented behavior. Under such conditions, Ethical leadership within vocational colleges may involve balancing governance stability with adaptive transformation, rather than treating Ethical leadership and innovation leadership as automatically compatible dimensions.

However, this tension should not be interpreted as evidence that Ethical leadership inherently suppresses innovation. Rather, the relationship depends on how ethical norms are institutionalized in organizational practice. In governance environments where Ethical leadership encourages transparency, psychological safety, and participatory decision making, it may instead strengthen innovation sustainability and collective trust during periods of organizational transformation.

4. Innovative leadership

Innovative leadership concerns how leaders inspire and support organizational innovation. Mumford et al. (2002) conceptualized it as the extent to which leaders support novel ideas and tolerate ambiguity and failure. Carmeli, Gelbard, and Reiter-Palmon (2013) introduced emotional and relational dimensions such as psychological safety, collaborative learning, and supportive feedback. In the Chinese context, Li and Shi (2005) emphasized collective innovation and harmony driven change. This study covers exploratory vision, psychologically safe environments, innovation resource support, cross departmental collaboration, and the systematic transformation of innovation outcomes into organizational value.

Definitions and core components

Mumford et al. (2002, p.714) defined Innovative leadership as “the extent to which leaders support and promote novel ideas, processes, and solutions, leading to enhanced performance,” arguing that leaders should provide cognitive support and experimentation space to foster innovation. They identified three critical dimensions: supporting creativity, problem solving and flexible decision making, and tolerance for ambiguity and failure.

Jung, Chow, and Wu (2003, p.536) highlighted the close relationship between Innovative leadership and organizational innovation, suggesting that such leaders stimulate employee creativity and foster a culture of knowledge sharing and experimentation. Deschamps (2005, p.4) added that Innovative leadership involves visionary leadership, strategic risk taking, and mobilizing diverse talent. Michaelis, Stegmaier, and Sonntag (2009, p.409) emphasized the role of reinforcing innovation goals, providing autonomy, and rewarding creative behaviors to motivate employees.

Carmeli, Gelbard, and Reiter-Palmon (2013, p.90) further stressed that psychological safety, collaborative learning, and supportive feedback are essential for creating an environment that supports innovation. In the Chinese context, Li and Shi (2005) pointed out that Innovative leadership should reflect a moral responsibility orientation and collective innovation responsibility, influenced by Confucian values of group harmony.

Taken together, the core components of Innovative leadership can be summarized into several key dimensions: vision and strategic orientation, empowerment and autonomy, supportive culture and psychological safety, risk tolerance and flexibility, and ethical and cultural adaptability. From a contextual perspective, Innovative leadership is a dynamic capability that drives continuous organizational learning. Leaders construct an exploratory vision, create psychologically safe environments for trial and learning, provide necessary resources and policy support, promote cross boundary collaboration, empower individuals and teams through delegation, establish continuous feedback and learning mechanisms, offer timely recognition and rewards for innovative efforts, and personally demonstrate agility in adapting to change. This systematically inspires, supports, and realizes the transformation from ideas to value.

Innovative leadership: contextual synthesis

In resource constrained Guizhou vocational colleges, Innovative leadership requires context sensitive strategies that turn limitations into opportunities. This study identifies four practical strategies: 1) “strategic anchoring” to prioritize mission aligned projects that serve local industries, 2) fostering psychological safety for prudent risk taking, 3) cross departmental resource integration, and 4) converting innovation outcomes into promotion credits (Table 4.9). The evaluation results (Table 4.14) show high feasibility for “strategic anchoring” ($M = 4.50$) but low feasibility for “leaders openly discussing their own failures” ($M = 3.42$). This low score is not a measurement artifact but a culturally meaningful signal: in high power distance and face sensitive (mianzi) contexts, direct leader self disclosure of failure may undermine hierarchical legitimacy. Therefore, culturally adapted alternatives—such as anonymized case based learning or third party facilitated retrospectives—are recommended to build psychological safety without challenging authority. Innovative leadership is not limited to driving technical or product innovation; it encompasses systemic change based on vision, cultural empowerment, and value driven leadership.

Critical reflection on Innovative leadership

Although Innovative leadership is commonly associated with organizational adaptability and creativity, innovation processes within vocational colleges may be substantially constrained by institutional structure, policy dependency, and uneven resource allocation. In Guizhou, administrators frequently operate in governance environments where organizational experimentation must coexist with strict administrative accountability and limited institutional autonomy. Consequently, innovation may depend not only on leaders' creativity oriented behaviors but also on their capacity to negotiate institutional risk, policy expectations, and resource limitations.

Moreover, innovation oriented leadership may generate tensions within traditionally hierarchical organizational systems, particularly when experimentation challenges established routines and authority structures. Under such conditions, Innovative leadership should be understood not merely as promoting creativity but as managing organizational uncertainty during educational transformation.

5. Digital leadership

Digital leadership represents an emerging competency requirement for leaders in the digital economy era. Avolio, Kahai, and Dodge (2000) first introduced the concept of e leadership, defined as "a social influence process mediated by advanced information technology." Kane et al. (2019) emphasized that Digital leadership is not merely about technology adoption but involves the integration of technological literacy, strategic foresight, and cultural transformation capacity. Wang Ting (2024) proposed a seven dimension framework including digital ethics, virtual team management, and sustainable learning. Wang and Chen (2019) stressed the integration of collectivist culture and data governance logic in the Chinese context. This study encompasses digital strategy formulation, data driven decision making, digital collaboration culture cultivation, digital ethics and security governance, and systematic evaluation and continuous optimization.

Definitions and core components

Avolio, Kahai, and Dodge (2000, p.617) defined e leadership as “a social influence process mediated by advanced information technology,” noting that leaders must leverage IT to communicate and coordinate remotely, thereby influencing employee attitudes, behaviors, and performance. El Sawy et al. (2016, p.16) clarified that Digital leadership is not merely about adopting technology but involves guiding organizations through dynamic digital ecosystems by continuously redefining business models and value creation processes, requiring capabilities such as digital strategy formulation, dynamic capability reconstruction, and cross boundary collaboration.

Schwarz Müller et al. (2018, p.372) argued that digital leaders need flexibility, collaboration, technological sensitivity, and a learning orientation to navigate rapidly changing digital environments. Gimpel et al. (2018, p.3) highlighted that the core of Digital leadership lies in creating digital value, building agile organizations, and cultivating a data driven culture, requiring cross domain integration capabilities. Kane et al. (2019, p.6) view Digital leadership as integrating technological literacy, strategic foresight, and the ability to reshape organizational culture, actively driving the fusion between technology and the organization.

Porfirio et al. (2021, p.610-619) confirmed that leadership is a critical factor for successful digital transformation, requiring leaders who can develop and execute digital strategies and integrate them into operational frameworks. Weber, Krehl, and Büttgen (2022, p.6-22) added that organizations with digital leaders skilled in developing visionary, transformative strategies are more likely to invest resources and use creative work methods to achieve their goals.

In the Chinese context, Wang Ting (2024, p.32) elaborated that Digital leadership involves understanding and applying technologies such as artificial intelligence and big data for data driven decision making, while also fostering innovation, adapting to market and technological changes, building trust through digital communication, and embracing digital ethics and sustainability. Wang and Chen (2019) proposed that Digital leadership in China must incorporate collectivist

culture and corporate governance logic, with key features including data driven decision making, ecosystem thinking, and flexible cultural management.

Taken together, the core components of Digital leadership can be categorized into: digital literacy, strategic vision, dynamic reconfiguration, data driven decision making, organizational agility, psychological safety and learning orientation, and cross cultural and ethical adaptability. From a contextual perspective, Digital leadership is an integrated leadership role adapted to the digital ecosystem. Leaders fulfill this role by mastering key digital technology competencies, formulating and championing digital transformation strategies, cultivating a culture of collaboration, openness, and knowledge sharing, supporting agile and virtualized workflows, integrating digital ethics and data security into practices, promoting the development of digitally skilled talent, advocating for innovation in teaching and administration through digital technologies, establishing strategic linkages with external digital ecosystems, and systematically evaluating and refining digital progress. This successfully guides the organization through digital transformation, builds organizational resilience, and creates sustainable value.

Digital leadership: summary of dimension specific practices

This study distinguishes between administrative Digital leadership (platform implementation, task driven training, evaluation metrics) and adaptive Digital leadership (using evaluation results to adjust strategy and resource allocation). This distinction is crucial in Guizhou, where digital infrastructure is expanding but teacher digital literacy remains uneven. A context sensitive development model must therefore build basic digital habits before expecting strategic adaptation. Table 4.9 lists seven measures. Evaluation results (Table 4.15) show high feasibility for training and platform use but lower feasibility for using evaluation results to adjust strategy. This gap suggests that Guizhou's colleges are in an early stage of digital transformation, where the priority is to normalize data driven routines and collaborative platform use. Once these habits are internalized, more adaptive practices—such as evidence based reallocation of training resources—can follow.

Digital leadership is a multidimensional, cross disciplinary leadership style that goes beyond merely managing technological adoption. It requires leaders to possess technical sensitivity and strategic thinking, and to build a supportive organizational culture, learning mechanisms, and ethical governance frameworks. Digital leadership is the key path for organizations to survive and innovate in the digital age, serving as the core driver for shaping future ready organizations and guiding them through the challenges of digital transformation.

Critical reflection on Digital leadership

Current Digital leadership research frequently emphasizes technological competence, digital infrastructure, and data driven management. However, digital transformation within vocational education involves not only technological adoption but also broader organizational, cultural, and psychological restructuring processes.

Within many vocational colleges, digital transformation may encounter resistance associated with institutional inertia, uneven digital literacy, generational differences, and concerns about governance transparency. Consequently, Digital leadership effectiveness may depend less on technological sophistication alone and more on leaders' ability to facilitate organizational adaptation and cultural acceptance.

In addition, digital transformation may generate structural tensions within traditionally centralized governance environments. While digital systems often require collaboration, flexibility, and decentralized information sharing mechanisms, institutional governance structures may continue to prioritize procedural control and hierarchical coordination. Under such conditions, Digital leadership should be interpreted as both a technological and an organizational transformation capability.

In this study, Digital leadership encompasses technology enabled transformation, including digital strategy formulation, virtual collaboration, digital ethics, and adaptive use of evaluation results. It presupposes basic information governance (covered by Information leadership) but focuses on leading organizational change through digital technologies.

Synergistic Relationships Among the Five Dimensions

The five leadership dimensions selected for this study are not isolated constructs but are intrinsically interconnected. Transformational leadership provides the motivational foundation—vision articulation, inspirational motivation, and intellectual stimulation—that energizes organizational members to embrace change and pursue excellence (Bass, 1985). This motivational energy, however, requires a normative anchor to ensure it is channeled toward morally defensible ends. Ethical leadership provides this anchor, establishing the normative framework of fairness, integrity, and accountability that guides decision-making and resource allocation (Brown, Treviño & Harrison, 2005).

While motivation and ethical grounding create the necessary conditions for organizational effectiveness, they do not automatically guarantee the ability to adapt to technological and market changes. Innovative leadership addresses this gap by fostering an organizational climate of psychological safety, experimentation, and learning (Mumford et al., 2002; Carmeli, Gelbard & Reiter-Palmon, 2013). Finally, Information leadership and Digital leadership provide the technical enablers, transforming data into strategic assets and leveraging digital technologies to drive governance transformation (Huvila, 2014; Avolio, Kahai & Dodge, 2000).

Together, these five dimensions form an integrated leadership competency system that addresses the full spectrum of challenges confronting vocational colleges in Guizhou: resource constraints, cultural diversity, and digital transformation (Tredinnick & Laybats, 2022). Figure 4.1 visually represents these synergistic relationships, with double-headed arrows indicating mutual reinforcement. This theoretical integration moves beyond single-theory applications toward a context-sensitive and functionally synergistic leadership framework.

Context of Vocational Colleges in Guizhou

Guizhou has 46 vocational colleges, with about 451,000 students. The average college size (9,800) is actually larger than the national average (8,700). So scale is not the issue. Three other things are.

First, money and resources are tight. Per student funding in 2022 was ¥12,000, only 66% of the national average. Only 58% of instructors have "dual qualified" status (both academic and industry experience), compared to 65% nationally. Equipment per student is ¥6,800 versus ¥8,200. When resources are this limited, you cannot rely on fancy facilities or high salaries to motivate people. You have to rely on trust, fairness, and relationships.

Second, culture and hierarchy matter. Guizhou is a place where collectivism is strong, power distance is moderate but noticeable, and there are many ethnic groups. What works in a Western or coastal Chinese setting does not always work here. For example, sharing information is sometimes seen as giving up power, so people hold back. Taking risks—which you need for innovation—can feel like losing face if it fails. You cannot just import leadership models from elsewhere.

Third, what colleges teach does not always match what industry needs. The national push for “Digital Economy” and “Rural Revitalization” means local industries (big data, new energy, mountain agriculture) are changing fast. But only about half (54%) of vocational programs align well with industry demand. Only 15% of school industry partnerships actually produce useful outcomes. Only 9.2% of teachers come from industry part time, well below the national average of 16.4%.

These three constraints—tight resources, cultural complexity, and a mismatch between education and industry—are the real context that any leadership model for Guizhou has to deal with. That is why I chose the five leadership dimensions I did: Information leadership to help use scarce resources better, Ethical leadership to build trust when money is short, Transformational leadership to create shared direction across different groups, Innovative leadership to adapt, and Digital leadership to close the gap with industry.

Conceptual Model Development

1. Principles for Developing Models

The construction of the leadership model in this study adheres to three core principles to ensure its robustness across theoretical, contextual, and practical dimensions.

First, the Principle of Theoretical Integration. The model must transcend the limitations of a single theoretical paradigm and achieve the organic integration of multiple schools of leadership theory. This requires the model not only to absorb the core elements of classic theories such as Transformational, Servant, and Distributed Leadership but also to incorporate emerging perspectives like Cross-Cultural and Complexity Leadership. The goal of theoretical integration is to construct a compound analytical framework capable of explaining multi-dimensional leadership behaviors and adapting to dynamic organizational environments, thereby laying a solid theoretical foundation for subsequent empirical testing.

Second, the Principle of Contextual Embeddedness. The model must be deeply rooted in the unique triple-context of Guizhou's vocational colleges: "resource constraints - cultural diversity - digital transformation." This means that the selection of model constructs, the specification of variable relationships, and the design of developmental pathways must directly respond to the real governance challenges and strategic needs arising from this context. This principle ensures the model breaks free from the constraints of a "generic template," gains genuine local relevance and ecological validity, and avoids the disconnection between theoretical construction and concrete practice.

Third, the Principle of Practical Orientation. The ultimate purpose of model development lies in application and translation. Under such conditions, the model's output must provide clear, observable, and actionable behavioral dimensions and competency indicators, and point to specific developmental pathways. The model should be able to directly serve administrator self-assessment, organizational diagnosis, and the systematic design of leadership development programs, thereby

demonstrating its instrumental value as a practical “action blueprint” and “evaluation framework.”

2. Conceptual Design of Educational Leadership Models

Based on the aforementioned principles, this study proposes a “Five-Dimensional Synergy, Contextually Moderated, Dynamic Development” conceptual model for educational leadership. Its overall design logic is as follows:

Core Construct and Operationalization. The model takes “Leadership Style of Vocational College Administrators” as the core dependent variable and operationalizes it into five dimensions that are relatively independent yet intrinsically interconnected: Information leadership, Transformational leadership, Ethical leadership, Innovative leadership, and Digital leadership. Together, these five dimensions constitute a comprehensive leadership competency system for addressing complex governance challenges.

Importantly, these leadership dimensions may not evolve synchronously within institutional practice. Ethical leadership and Transformational leadership often emerge earlier because they align more closely with traditional educational governance structures emphasizing legitimacy, collective responsibility, and organizational coordination. By contrast, Innovative leadership and Digital leadership frequently require deeper institutional restructuring, technological readiness, and cultural adaptation. Therefore, leadership development within vocational colleges may involve an uneven and transitional progression rather than a uniformly balanced competency pattern. From a developmental perspective, Ethical leadership and Transformational leadership may function as foundational governance capacities because they establish institutional legitimacy, organizational trust, and collective coordination. By contrast, Innovative leadership, Information leadership, and Digital leadership may represent higher-order transformational capabilities requiring stronger institutional flexibility, technological infrastructure, and adaptive organizational culture. Consequently, leadership modernization within vocational colleges may occur sequentially rather than simultaneously across all leadership dimensions.

Structural Relationships Among Dimensions. The model hypothesizes the existence of systematic synergy and symbiotic relationships among the five dimensions. For instance, profound digital transformation (Digital leadership) relies on organizational consensus (Transformational leadership) and ethical trust (Ethical leadership) as its social foundation, and is driven and optimized through continuous exploratory learning (Innovative leadership) and precise data insights (Information leadership). The model aims to reveal these intrinsic synergistic mechanisms, rather than presenting an isolated list of traits.

The Moderating Role of Context. Guizhou's specific policy environment, economic structure, cultural characteristics, and resource conditions are explicitly defined as the model's key contextual variables and boundary conditions. These contextual factors are not direct components of the model but are hypothesized to exert a significant moderating effect on the manifestation intensity, interrelationships, and effectiveness of the five leadership dimensions. The model emphasizes that excellent leadership practice is an adaptive product of the continuous interaction between the leader's competency system and the specific context.

The Output Form of the Model. The final product of this model is a multi-level, structured leadership development framework. This framework will Relatively define the core components, typical behavioral manifestations, and identifiable developmental stages for each dimension, thereby providing an integrated theoretical reference and practical roadmap for systematic current-state diagnosis, gap analysis, and personalized developmental intervention.

3. Reasons for selecting five variables

The selection of the aforementioned five leadership dimensions as the model's core constructs is based on a three-tiered, progressive argumentation logic encompassing theoretical deduction, policy alignment, and contextual diagnosis. This logic ensures the necessity and sufficiency of the variable selection.

Theoretical Tier: Responding to the Intrinsic Demands of Disciplinary Evolution. Contemporary leadership research has Relatively demonstrated a trend of evolution from singular paradigms toward compound, context-sensitive paradigms.

The five dimensions selected for this model precisely correspond to the core expansions of leadership theory in three key areas: Technology and Data Enablement (Information and Digital leadership), Organizational Motivation and Value Ethics (Transformational and Ethical leadership), and System Adaptation and Change Innovation (Innovative leadership). Together, they constitute a complete cluster of theoretical responses capable of explaining and addressing organizational challenges in the VUCA era.

Policy Tier: Aligning with the Competency Demands of Strategic Development. Variable selection directly echoes the top-level national design for “High-Quality Development of Vocational Education” and Guizhou’s regional core strategies of “Digital Economy” and “Rural Revitalization.” Each dimension accurately corresponds to a key gap in policy implementation capability: Information and Digital leadership are central to responding to the “Educational Digitalization” strategy and achieving intelligent governance; Transformational and Innovative leadership are the internal engines driving institutional “Connotative Development” and “Deep Integration of Industry and Education”; Ethical leadership serves as the governance cornerstone for maintaining fairness and justice and solidifying organizational trust amidst diverse interests and resource distribution.

Contextual Tier: Targeting Precise Intervention for Real-World Challenges. This is the most direct and targeted basis for variable selection, aiming to provide diagnostic responses and competency development for the three major real-world challenges faced by Guizhou’s vocational colleges:

Addressing Resource Constraints: Enhancing resource allocation efficiency through Information leadership, exploring unconventional development pathways through Innovative leadership, and ensuring procedural and substantive fairness in the resource distribution process through Ethical leadership.

Responding to Cultural Diversity: Building a shared vision and organizational identity that transcends differences relying on Transformational leadership, and establishing universal norms of trust, respect, and fairness within diversity relying on Ethical leadership.

Resolving Development Mismatch: Driving the deep integration of education with regional industrial digitalization processes through Digital leadership, stimulating agile iteration of program structures and curriculum content through Innovative leadership, and effectively mobilizing organizational members to accept and lead change through Transformational leadership.

4. Data Processing Process for Model Construction

To ensure the model is constructed on a solid empirical foundation, this study designs a rigorous research process featuring three iterative stages and a parallel mixed-methods approach.

Stage 1: Quantitative Measurement and Establishment of Baseline Status.

This stage aims to operationalize the measurement of the five leadership dimensions through a large-sample questionnaire survey and establish a quantitative baseline of the current status.

Primary Method: Standardized questionnaire developed based on literature and tested for reliability and validity.

Data Processing and Analysis: Use of software such as SPSS or Mplus for descriptive statistics, reliability analysis (Cronbach's α), exploratory and confirmatory factor analysis (EFA/CFA) to test scale construct validity, and preliminary exploration of inter-dimensional relationships through correlation analysis. The output of this stage provides the model with a quantifiable current-state profile and preliminary evidence of dimensional structure.

Stage 2: Qualitative Exploration and Deep Mining of Mechanisms.

This stage aims to understand the specific practical manifestations, internal logic, and interactive mechanisms of the leadership dimensions within real organizational contexts through in-depth interviews.

Primary Method: Semi-structured in-depth interviews with purposively selected college administrators.

Data Processing and Analysis: Systematic qualitative content analysis or thematic analysis of interview transcripts, extracting core themes, behavioral patterns, and narrative logic through three-level coding (open, axial, selective). The output of

this stage consists of thick descriptions and explanatory insights into “how leadership occurs,” which form the core basis for constructing hypotheses about the model’s internal relational mechanisms (i.e., “synergistic mechanisms”).

Stage 3: Expert Validation and Finalization of the Model.

This stage aims to leverage the collective wisdom of domain experts to conduct multiple rounds of critical review and revision of the preliminarily constructed conceptual model, thereby enhancing its content appropriateness, logical rigor, and practical feasibility.

Primary Method: Employing a modified Delphi method for multiple rounds of expert consultation, supplemented by a semi-structured model evaluation scale.

Data Processing and Analysis: Quantitative analysis of the central tendency (mean, median), dispersion (standard deviation, interquartile range), and coefficient of concordance, Kendall’s W of expert opinions; qualitative synthesis of revision suggestions and rationales provided by experts. Through iterative feedback, fine-tuning adjustments are made to the model’s content, structure, and formulation. This stage ultimately yields the finalized conceptual model validated by expert judgment.

The entire process constitutes a complete evidence-chain closed loop from “broad measurement” to “deep understanding” to “authoritative validation.” This ensures the final model is not only supported by empirical data but also incorporates the experiential wisdom of practitioners and has undergone rigorous critique by the academic community, thereby achieving methodological triangulation and enhancing the study’s overall validity and credibility.

Related Research

In recent years, both Chinese and international scholars have developed a relatively systematic body of research along the logical chain of “leadership typology-organizational context-educational governance performance.” Key areas of focus include Information leadership, Transformational leadership, Ethical leadership, Innovative leadership, and Digital leadership. This section presents a critical review of

these five leadership paradigms using a framework of “conceptual definition-structural dimensions-contextual effects,” while identifying their applicability gaps and future research directions within the context of higher vocational colleges in Guizhou Province, China.

1. Information leadership

Tredinnick & Laybats (2022) in their discussion of information and knowledge leadership within knowledge organizations, conceptualized Information leadership as a dynamic process through which leaders leverage information resources, articulate strategic vision, and shape organizational culture to support knowledge management and organizational learning. Their analysis emphasized that effective Information leadership extends beyond technical information management and requires the integration of leadership behaviors, communication practices, and knowledge-sharing mechanisms within digitally mediated organizational environments. The study further argued that organizations capable of aligning information strategy with leadership practices are better positioned to enhance innovation capacity, collaborative learning, and adaptive performance in knowledge-intensive contexts.

Lloyd (2010), Huvila (2014) proposed in their studies on Information leadership Structures that the objectives are to identify the core components of Information leadership. Their conceptual synthesis includes leadership in information resources and infrastructure, information literacy and reflective ability, emotional intelligence and organizational learning facilitation, data-driven decision-making, and cross-cultural virtual team governance.

Existing studies primarily focus on enterprises and universities. The results show a lack of empirical research on how “information poverty” and the “digital divide” affect leadership effectiveness in Guizhou’s vocational education under the pressures of resource scarcity, digital transformation, and rural revitalization.

2. Transformational leadership

Bass (1985) proposed in *Leadership and Performance Beyond Expectations* that the objectives are to conceptualize Transformational leadership through four dimensions: idealized influence, inspirational motivation, intellectual stimulation, and

individualized consideration. The population consists of corporate and educational leaders. The results show that these dimensions enhance employee satisfaction, organizational commitment, and performance.

Existing research emphasizes primary and undergraduate institutions, while limited evidence exists for Guizhou's "Double High Plan" vocational colleges. The results show that the tripartite administrative-teaching-enterprise structure and regional diversity have not yet been systematically addressed.

3. Ethical leadership

Brown et al. (2005) proposed in *Ethical leadership: A Social Learning Perspective* that the objectives are to define Ethical leadership through the dual dimensions of "moral person" and "moral manager." The population includes organizational leaders across sectors. The results show that ethical leaders influence subordinates through moral example and fair management.

Kalshoven et al. (2011) proposed in *Ethical leadership at Work* that the objective is to expand the construct to seven behavioral dimensions emphasizing fairness, integrity, ethical guidance, and care. The results show improved organizational justice perceptions.

4. Innovative leadership

Mumford et al. (2002) proposed in *Leadership for Innovation* that the objective is to emphasize support for novel ideas and tolerance for risk. The sample includes R&D managers. The results show that innovation-oriented leadership enhances creative problem solving.

Carmeli et al. (2013) proposed in *Innovative leadership and Learning from Failure* that the objectives are to integrate psychological safety and feedback learning. The results show that these dimensions foster continuous innovation.

Li Chaoping & Shi Kan (2005) proposed in *Harmony and Collective Innovation* that the objective is to adapt Innovative leadership to Confucian collectivist contexts, emphasizing collective responsibility and harmony-driven motivation.

5. Digital leadership

Avolio et al. (2000) proposed in *E-Leadership: Implications for Theory, Research, and Practice* that the objective is to conceptualize leadership in technology-mediated contexts. The results show that digital communication reshapes leader-follower interaction.

Wang Ting (2024) proposed in *Seven Dimensions of Digital leadership* that the objective is to expand the model to include digital ethics, virtual teamwork, and sustainable learning.

Current research neglects the challenges of weak digital infrastructure, uneven teacher literacy, and ethnic diversity in Guizhou's HVCs. The results show that empirical studies on leadership mechanisms in specific digital technologies remain insufficient.

6. Research Integration and Future Directions

This study takes resource scarcity, rural revitalization, and digital transformation as boundary conditions to construct an integrated model of “transformational-servant-distributed leadership.” Information and Digital leadership are introduced as technological enablers, while ethical and Innovative leadership serve as value-based and innovation-protection mechanisms. The resulting framework features visionary guidance, cultural embeddedness, and adaptive dynamics.

A mixed-methods design will be employed. A large-scale survey will test causal relationships among leadership dimensions, teacher innovation behavior, and student employment outcomes. In-depth case studies will explore leadership behavior in two extreme scenarios, mountain specialization and digital twin environments, addressing the limitations of purely quantitative approaches in capturing cultural sensitivity.

This study responds to the Thailand E-learning & Digital Education 2023 strategy, which calls for research into “Digital leadership with regional characteristics.” The findings aim to offer a replicable and scalable model of vocational education governance applicable to similarly underdeveloped regions

within ASEAN. Current literature provides a solid theoretical foundation for studying leadership in Guizhou's vocational colleges. However, integrated models and empirical testing under the complex overlay of resource constraints, ethnic diversity, and technological transition remain underdeveloped. This study seeks to address this critical gap and lay the groundwork for future cross-national comparisons and policy experimentation.

Theoretical Propositions

The preceding review has identified a gap in the literature regarding integrated, context sensitive leadership models for vocational colleges in less developed western Chinese provinces. Drawing on the theoretical pluralism outlined in sections 2.2 through 2.5, and anticipating the empirical findings reported in Chapter 4, this section distills a set of theoretical propositions. These propositions are not post hoc speculations but are inductively grounded in the five dimensional model that emerged from the interview data. They are offered as testable relationships for future research, thereby transforming the proposed leadership model from a descriptive framework into a generative theory.

Proposition 1 Cultural anchoring of Ethical leadership.

In organizational contexts characterized by high collectivism and moderate power distance—such as the vocational colleges in Guizhou—Ethical leadership exerts a stronger positive effect on faculty trust and procedural justice perceptions than on faculty innovative behavior. This is because Confucian administrative traditions prioritize moral exemplarity as a precondition for legitimate authority, whereas innovation-oriented behaviors require additional institutional mechanisms that are not yet fully developed in resource constrained settings.

Proposition 2 Sequential development of Digital leadership capabilities

During the early stages of digital transformation in vocational colleges, administrative Digital leadership (e.g., establishing platforms, delivering task driven training, and setting usage benchmarks) develops faster and is perceived as more feasible than adaptive Digital leadership (e.g., using evaluation results to reallocate

resources or revise strategy). The two capabilities are not independent; rather, administrative Digital leadership must reach a threshold level before adaptive Digital leadership can emerge.

Proposition 3 Ethical leadership as a substitute for material incentives

Under conditions of chronic resource scarcity (per student funding $\leq 66\%$ of the national average), Ethical leadership—specifically its dimensions of procedural fairness and transparent accountability—partially substitutes for material incentives in predicting faculty organizational commitment. The substitution effect operates through the mediating mechanism of organizational trust.

Proposition 4 Distributed ethical governance enhances system legitimacy

When high stakes decisions (e.g., resource allocation, promotion reviews) involve multi stakeholder review mechanisms with anonymous scoring and third party oversight, faculty perceive the accountability system as more legitimate compared to decisions made solely by top administrators. This effect is stronger in institutions with a history of relational (guanxi) influence in decision making.

These four propositions are not exhaustive but illustrate the kind of theoretical work that the proposed model enables. Chapter 5 will revisit these propositions in light of the expert evaluation results and will discuss how they can be empirically tested in future studies.

Chapter 3

Research Methodology

This study employed an explanatory sequential mixed methods design. Phase 1 (quantitative survey) diagnosed the current levels of the five leadership dimensions among 205 teachers, identifying specific gaps (e.g., low scores on transparent information sharing and systematic digital evaluation). Phase 2 (qualitative interviews) then explored the reasons behind these gaps through semi structured interviews with 14 experienced administrators, eliciting context sensitive strategies that were distilled into a 33 measure development model. Phase 3 (expert evaluation) independently validated the model's adaptability and feasibility using a separate panel of 12 experts (administrators, scholars, and teachers). This sequential logic ensures that each phase builds directly upon the findings of the previous one, forming a coherent chain from diagnosis to development to validation. This research focuses on Development leadership style model for administrators in Vocational Colleges in Guizhou. To study the current situation of leadership style, formulate and evaluate the guidelines for Developing leadership style model for administrators in Vocational Colleges in Guizhou. The researcher has the following procedures.

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

Research Trustworthiness and Methodological Rigor

Several procedures were adopted to strengthen the methodological rigor and trustworthiness of this study.

First, methodological triangulation was employed through the integration of quantitative questionnaires, semi-structured interviews, and expert evaluation

procedures. The use of multiple data sources allowed cross-validation of findings and reduced the risk of single-method bias.

Second, the research instruments were developed based on established leadership theories and subsequently reviewed by experts in educational leadership and vocational education management. This process enhanced content validity and contextual appropriateness.

Third, reliability analysis was conducted to ensure internal consistency among measurement items. All leadership dimensions demonstrated acceptable reliability coefficients exceeding the recommended threshold for social science research.

Fourth, during the qualitative phase, member checking procedures were applied by allowing interview participants to review and confirm the accuracy of interview interpretations. Peer review and coding comparison were additionally conducted to reduce interpretive subjectivity.

Finally, the expert evaluation phase strengthened the practical applicability of the proposed leadership model by examining feasibility, contextual suitability, and implementation relevance within vocational colleges in Guizhou Province.

This study employed an explanatory sequential design. Phase 1 (quantitative survey) diagnosed the current levels of the five leadership dimensions among 205 teachers, identifying specific gaps (e.g., low scores on transparent information sharing and systematic digital evaluation). Phase 2 (qualitative interviews) then explored the reasons behind these gaps through semi-structured interviews with 14 experienced administrators, eliciting context-sensitive strategies that were distilled into a 33-measure development model. Phase 3 (expert evaluation) independently validated the model's adaptability and feasibility using a separate panel of 12 experts (administrators, scholars, and teachers). This sequential logic ensures that each phase builds directly upon the findings of the previous one, forming a coherent chain from diagnosis to development to validation.

Phase 1: To study the level of leadership style for administrators in Vocational Colleges in Guizhou.

The Population / Sample Group

The Population

The population of this research is 421 teachers from 7 vocational colleges in Guizhou.

The Sample Group

According to Krejcie and Morgan sampling table (1970), The sample group for the questionnaire survey consisted of 205 teachers selected from 7 vocational colleges in Guizhou using stratified random sampling and simple random sampling. These teachers were asked to evaluate the leadership styles of their respective college administrators.

Table 3.1 Lists of College and sample size

No	Vocational Colleges in Guizhou	Population	Sample group
1	Guizhou Industry Polytechnic College	81	39
2	Guiyang Healthcare Vocational University	94	46
3	Guizhou Vocational College of Economics and Business	41	20
4	Guizhou Vocational College of Finance and Economics	40	19
5	Guizhou Vocational College of Culture and Tourism	54	26
6	Guizhou Technical College of Machinery and Electricity	54	26
7	Qiannan Polytechnic for Nationalities	57	28
Total		421	205

Research Instruments

Questionnaire

The instrument to collect the data for objective one, to study the current situation of leadership style of administrators in vocational colleges in Guizhou was a questionnaire. The questionnaire was designed based on leadership style model in five aspects: 1) Information leadership, 2) Transformational leadership, 3) Ethical leadership, 4) Innovative leadership, 5) Digital leadership. The questionnaire was divided into two parts:

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

Part 2: Survey the current situation of leadership style of administrators in vocational colleges in Guizhou. The criteria for data interpretation based on a five-point Likert's scale (1932), as follows:

5 refers to the level of leadership style of administrators at the highest level

4 refers to the level of leadership style of administrators at a high level

3 refers to the level of leadership style of administrators at a medium level

2 refers to the level of leadership style of administrators at a low level

1 refers to the level of leadership style of administrators at the lowest level

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

4.50 - 5.00 refers to the highest level

3.50 - 4.49 refers to high level

2.50 - 3.49 refers to medium level

1.50 - 2.49 refers to low level

1.00 - 1.49 refers to the lowest level

Constructing a questionnaire process

The construction process of the questionnaire is as follows:

Step 1: Reviewing and analyzing documents, concepts, theories, and research related to leadership style of university administrators.

Step 2: Construct the questionnaire about the current situation of leadership style of administrators in vocational colleges in Guizhou. Then the researcher sent the questionnaire outline of questionnaire to the thesis advisors to review and revise the contents according to the suggestions.

Step 3: The index of objective congruence (IOC) of the questionnaire was examined by 5 experts.

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

Step 5: The questionnaires were distributed to 5 administrators in vocational colleges in Guizhou for try-out. The reliability of the questionnaire was obtained by Cronbach's Alpha Coefficient.

The pilot test with 5 administrators yielded a Cronbach's α of 0.93 for the overall 42 item scale, indicating excellent internal consistency. Subscale reliabilities were as follows: Information leadership ($\alpha=0.87$), Transformational leadership ($\alpha=0.89$), Ethical leadership ($\alpha=0.91$), Innovative leadership ($\alpha=0.88$), and Digital leadership ($\alpha=0.85$). All exceeded the recommended threshold of 0.70 for social science research (Nunnally, 1978).

Step 6: The questionnaire was applied to 205 teachers in vocational colleges in Guizhou.

Data Collection

The data collection for objective 1: to study the current situation of leadership style of administrators in vocational colleges in Guizhou, as following procedured:

Step 1: The researcher requested requirement letter from the graduate school, Bansomdejchaopraya Rajabhat University for requiring to collect the data from 205 teachers in vocational colleges in Guizhou.

Step 2: The researcher distributed the questionnaire to 205 teachers. A total of 205 questionnaires.

Data Analysis

The data analysis in this research, the researcher analyze the data by package program, as follows:

Step 1: The personal information of the respondents was analyzed by frequency and percentage, classified by gender and education background.

Step 2: The current situation of leadership style of administrators in vocational colleges in Guizhou. in five following aspects: 1) Information leadership, 2) Transformational leadership, 3) Ethical leadership, 4) Innovative leadership, 5) Digital leadership was analyzed by Mean and standard deviation.

Because all survey responses came from a single source (teachers evaluating their administrators), common method variance could potentially inflate observed relationships. To assess this threat, Harman's single factor test was conducted on the 42 items of the five dimension questionnaire. The unrotated factor solution yielded nine factors with eigenvalues greater than 1.0, and the first factor explained 27.3% of the total variance—well below the common threshold of 40% or 50%. This result suggests that common method bias is not a pervasive concern in the present dataset.

The quantitative findings from Phase 1 did more than merely establish a baseline; they also revealed a specific developmental paradox. While all five leadership dimensions were rated as high, Information leadership and Digital leadership consistently scored the lowest, and within these dimensions, items related to transparent information sharing and systematic evaluation of digital progress were particularly weak. Such statistical signals, however, could not explain why these gaps existed or what practical measures might close them. Consequently, Phase 2 was designed not as a separate qualitative exercise but as a direct response to these diagnostic puzzles. The semi structured interview protocol was deliberately built around the five dimensional framework, with targeted probes into the very items that scored lowest. More importantly, the interview questions were crafted to elicit context sensitive strategies from seasoned administrators—strategies that could turn the abstract notion of “improving Information leadership” into concrete,

actionable steps. In this way, Phase 2 inherited the empirical rigor of Phase 1 while shifting the inquiry from “what is” to “what can be done,” thereby ensuring that the subsequent model development was both evidence driven and contextually grounded.

Phase 2: To propose a development of leadership style model for administrators in vocational colleges in Guizhou.

The Interviewees

The interviewee in this research is 14 administrators in vocational colleges in Guizhou. The qualifications of interviewee are as follows: 1) At least 5 years of work experience in administrator in vocational colleges, 2) Received the certificate in the field of innovative, 3) Graduated with master’s degree or above.

Recruitment of interviewees continued until theoretical saturation was reached. After the 12th interview, no new themes or context-sensitive strategies emerged concerning the five leadership dimensions; the 13th and 14th interviews only reinforced previously identified patterns (e.g., the importance of “rule first” in Ethical leadership, the need for tiered digital literacy training, and the cultural constraint on leaders discussing personal failures). Thus, the sample of 14 was judged sufficient for the purpose of constructing a development model grounded in local practitioner knowledge.

Research Instruments

Semi-structured interview

The instrument to collect the data for objective two is to formulate the model for developing the leadership style of administrators in vocational colleges in Guizhou. The semi-structured interview was designed based on the current situation of leadership style of administrators in vocational colleges and leadership style in five following aspects: 1) Information leadership, 2) Transformational leadership,

3) Ethical leadership, 4) Innovative leadership, 5) Digital leadership. The semi-structured interview is divided into two parts:

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

Part 2: the questions about suggestions for developing the current situation of leadership style based on five aspects: 1) Information leadership, 2) Transformational leadership, 3) Ethical leadership, 4) Innovative leadership, 5) Digital leaderships, for administrators in vocational colleges in Guizhou.

Constructing a semi-structured interview process

The construction process of the semi-structured interview is as follows:

Step 1: Reviewing and analyzing documents, concepts, theories, and research related to leadership style of college administrators.

Step 2: Construct the semi-structured interview about suggestions for developing the current situation of leadership style based on five aspects: 1) Information leadership, 2) Transformational leadership, 3) Ethical leadership, 4) Innovative leadership, 5) Digital leadership. Then send the outline of the semi-structured interview to the thesis advisors to review and revise the contents according to the suggestions.

Data Collection

The data collection for objective 2: to formulate the guidelines for Developing leadership style model for administrators in Vocational Colleges in Guizhou, as follows:

Step 1: The researcher requested a requirement letter from the graduate school, Bansomdejchaopraya Rajabhat University requiring to interview administrators from 7 vocational colleges in Guizhou.

Step 2: The researcher interviews the administrator one by one through an online platform or face-to-face depending on the interviewee's convenience.

Data Analysis

The semi structured interviews conducted in Phase 2 were analyzed using content analysis. This analysis yielded a detailed leadership development model comprising 33 specific measures distributed across the five dimensions. These measures were not speculative; they were distilled from the lived experiences of 14 administrators who daily navigate the resource constraints, cultural diversity, and digital transformation pressures characteristic of Guizhou's vocational colleges.

However, a model derived solely from practitioner insights, however rich, requires independent scrutiny before it can be recommended for broader use. This need for critical validation shaped the logic of Phase 3. Rather than returning to the same interviewees, the study convened a separate panel of 12 experts—including administrators, scholars, and teachers—who had not participated in the earlier interviews. The evaluation instrument was explicitly mapped onto the 33 measures, and two criteria were selected: adaptability (whether each measure fits the local context) and feasibility (whether it can be realistically implemented given existing institutional constraints). This design allowed Phase 3 to function as an external audit, testing the practical wisdom captured in Phase 2 against the collective judgment of a new set of knowledgeable peers. Thus, Phase 3 did not merely append an evaluation; it completed a logical arc from problem identification (Phase 1) to solution generation (Phase 2) to independent verification (Phase 3).

Phase 3: To evaluate the suitability and feasibility for Development leadership style model for administrators in Vocational Colleges in Guizhou.

The Expert Panel

Expert group

A panel of 12 experts from vocational colleges in Guizhou was selected to evaluate the suitability (adaptability) and feasibility of the proposed model. The panel was intentionally composed to represent three stakeholder perspectives: four senior administrators (e.g., vice presidents, deans), four scholars (professors in

educational administration or vocational education), and four teachers (each with at least five years of teaching experience). All experts met the following qualifications: 1) at least five years of work experience in an administrative or teaching role in a Guizhou vocational college; 2) possession of a certificate or demonstrated expertise in educational administration, leadership, or innovation; and 3) a master's degree or higher.

It should be noted that the expert evaluation was designed as a single round, multi expert feedback assessment rather than a full modified Delphi process. The purpose was to obtain independent judgments from a panel that had not participated in the earlier interview phase, not to force consensus through iterative rounds. Future research may extend this work by conducting two additional Delphi rounds to refine the 33 measures further, but for the present dissertation the single round is sufficient to establish face validity and practical credibility.

Research Instruments

Evaluation form

The instrument to collect the data for objective three, to evaluate the model for developing the leadership style of administrators in vocational colleges in Guizhou. The evaluation form designed based on model for developing the leadership style of administrators in vocational colleges in four following aspects: 1) Information leadership, 2) Transformational leadership, 3) Ethical leadership, 4) Innovative leadership, 5) Digital leadership. The evaluation form provide into two parts:

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 developing the leadership style of administrators in vocational colleges in Guizhou. The criteria for data interpretation based on a five-point Likert's scale, as follows:

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

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

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

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

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

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

4.50 - 5.00 refers to the highest level

3.50 - 4.49 refers to high level

2.50 - 3.49 refers to medium level

1.50 - 2.49 refers to low level

1.00 - 1.49 refers to the lowest level

It should be noted that the expert evaluation was designed as a single-round, multi-expert feedback assessment rather than a full modified Delphi process. The purpose was to obtain independent judgments of the model's adaptability and feasibility from a panel that had not participated in the interview phase, not to force consensus through iterative rounds. Future research may extend this work by conducting two additional Delphi rounds to refine the 33 measures further, but for the present dissertation the single round is sufficient to establish face validity and practical credibility.

Constructing an evaluation form process

The construction process of the evaluation form is as follows:

Step 1: Construct the evaluation form about development leadership style model for administrators in vocational colleges in Guizhou.

Step 2: The evaluation form was applied to 14 administrators in vocational colleges in Guizhou.

Data Collection

The data collection for objective 3: to evaluate the model for developing the leadership style of administrators in vocational colleges in Guizhou, as following procedure:

Step 1: The researcher requested a requirement letter from the graduate school, Bansomdejchaopraya Rajabhat University for requiring to invite the expert to evaluate the model.

Step 2: The researcher distributed the evaluation form to 12 experts. A total of 12 evaluation forms were returned and analyzed.

Data Analysis

The evaluation data for the model's adaptability and feasibility were analyzed by calculating means and standard deviations using statistical software.

Viewed as a whole, the three phases constitute an integrated, evidence driven research cycle rather than a set of disconnected steps. Phase 1 provided a quantitative diagnosis, pinpointing not only the relative strengths of Ethical leadership but also the specific operational deficits in Information and Digital leadership. Phase 2 then used these diagnostic clues to guide a focused qualitative inquiry, transforming statistical underperformance into a structured set of 33 actionable measures. Phase 3 closed the loop by submitting these measures to an independent panel of experts, whose high ratings for adaptability and feasibility provided external confirmation that the model is both contextually appropriate and practically implementable. This sequential logic—diagnosis, development, validation—ensured that each phase built directly upon the findings of the previous one, leaving no room for arbitrary or purely theoretical construction. The mixed methods design did not merely combine quantitative and qualitative techniques; it orchestrated them in a deliberate sequence where each method's strengths compensated for the other's limitations. The result is a leadership model that is empirically grounded, contextually sensitive, and methodologically defensible—attributes that are essential for its credibility and applicability in the vocational education settings of Guizhou Province.

Chapter 4

Results of Analysis

This research aimed to examine the model for developing the leadership competencies of administrators in vocational colleges in Guizhou Province, China.

The results of the data analysis are presented in the following sequence:

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

The details are as follows.

Symbol and Abbreviations

N	refers to the sample group
$\bar{X}$	refers to the Mean
S.D	refers to the standard deviation

Presentation of Data Analysis

Part 1: Personal information of the respondents (gender, educational background, work experience), reported as frequencies and percentages.

Part 2: Current levels of the five leadership styles, reported as means and standard deviations.

Part 3: Interview findings that informed the development model.

Part 4: Expert evaluation of the model's adaptability and feasibility, reported as means and standard deviations.

Results of Data Analysis

The data were analyzed in four parts, corresponding to the four parts above.

Part 1: Personal information of the respondents (gender, educational background, work experience), reported as frequencies and percentages.

Table 4.1 Personal information of the survey respondents

(n = 205)

	Personal Information	Frequency	Percentage
Gender	Male	73	35.61
	Female	132	64.39
	Total	205	100
Educational background	Bachelor's degree	56	27.32
	Master's degree	143	69.76
	Doctoral degree	6	2.93
	Total	205	100
Work experience in Education	1-3 years	49	23.9
	4-6 years	38	18.54
	More than 7 years	118	57.56
	Total	205	100

Table 4.1 shows 132 females, accounting for 64.39%, and 73 males, accounting for 35.61%. The educational background of respondents was mainly a master's degree for 143 people, accounting for 69.76%.

Part 2: Current levels of the five leadership styles, reported as means and standard deviations.

Table 4.2 Mean and Standard Deviation of the Level of Leadership Style for Administrators in Five Aspects

(n = 205)

Leadership Style for Guizhou Vocational College Administrators in Five Aspects		$\bar{X}$	S.D.	Level	Order
1	Information leadership	3.72	1.02	high	4
2	Transformational leadership	3.73	1.05	high	3
3	Ethical leadership	3.76	0.99	high	1
4	Innovative leadership	3.74	1.03	high	2
5	Digital leadership	3.72	1.00	high	4
Total		3.73	1.01	High	

Table 4.2 indicates an overall “high” rating across all five dimensions ($\bar{X}=3.73$, S.D.=1.01). Ethical leadership scored highest ($\bar{X}=3.76$), followed by Innovative ($\bar{X}=3.74$) and Transformational ($\bar{X}=3.73$). Information and Digital leadership tied for the lowest, both at ($\bar{X}=3.72$.)

Table 4.3 Mean and standard deviation of the level of leadership style for administrators in Information leadership

(n = 205)

Information leadership		$\bar{X}$	S.D.	Level	Order
1	Administrators manage information as a strategic asset for institutional planning and administration.	3.84	1.02	high	1
2	Administrators effectively utilize data and evidence in key strategic decision-making.	3.75	1.04	high	3
3	Administrators actively promote transparent information sharing across all organizational hierarchies.	3.60	1.07	high	8

Table 4.3 (Continued)

(n = 205)

	Information leadership	$\bar{X}$	S.D.	Level	Order
4	Administrators systematically implement initiatives to enhance the overall digital literacy of the organization.	3.71	1.06	high	4
5	Administrators support the integration of technological tools into pedagogical and operational innovation.	3.79	1.01	high	2
6	Administrators establish effective information governance frameworks to ensure information quality and security.	3.71	1.04	high	4
7	Administrators are committed to cultivating a data-driven decision-making and learning culture within the organization.	3.65	1.08	high	7
8	Administrators are capable of transforming information capabilities into a sustained competitive advantage for the institution.	3.70	1.09	high	6
Total		3.72	1.02	High	

Table 4.3 shows an average of 3.72 (S.D.=1.02) for Information leadership. The highest rated item ($\bar{X}$ =3.84) concerned managing information as a strategic asset; the lowest ($\bar{X}$ =3.60) was promoting transparent information sharing across hierarchies.

Table 4.4 Mean and standard deviation of the level of leadership style for administrators in Transformational leadership

(n = 205)

	Transformational leadership	$\bar{X}$	S.D.	Level	Order
1	Administrators can articulate a clear and compelling shared vision for the institution's future development.	3.80	1.09	high	1
2	Administrators serve as role models in terms of ethical conduct and professional dedication.	3.80	1.07	high	1
3	Administrators demonstrate genuine concern for the personal well-being and professional growth of staff.	3.65	1.14	high	6
4	Administrators encourage critical thinking and provide intellectual stimulation to foster growth.	3.60	1.09	high	7
5	Administrators are capable of inspiring staff to transcend self-interest and commit themselves to the collective objectives of the organization.	3.66	1.11	high	5
6	Administrators emphasize and demonstrate high moral standards and integrity in their leadership.	3.78	1.09	high	3
7	Administrators make deliberate efforts to identify and cultivate leadership potential in their subordinates.	3.75	1.08	high	4
Total		3.73	1.05	High	

Transformational leadership averaged 3.73 (S.D.=1.05). Two items shared the highest rating ($\bar{X}$ =3.80): articulating a shared vision and serving as ethical role models. The lowest rated item ($\bar{X}$ =3.60) was encouraging critical thinking and intellectual stimulation.

Table 4.5 Mean and standard deviation of the level of leadership style for administrators in Ethical leadership

(n = 205)

	Ethical leadership	$\bar{X}$	S.D.	Level	Order
1	Administrators demonstrate personal integrity and strong moral character in their actions and values.	3.81	1.04	high	1
2	Administrators adhere to principles of fairness and justice in all their decisions and actions.	3.72	1.09	high	4
3	Administrators establish and maintain a transparent and credible accountability system.	3.70	1.08	high	5
4	Administrators actively cultivate an organizational culture characterized by mutual respect and inclusion.	3.81	1.02	high	1
5	Administrators ensure that resource allocation processes are equitable and justified, and outcomes are fair.	3.70	1.06	high	5
6	Administrators display genuine altruistic concern and a sense of moral responsibility towards the community and stakeholders.	3.77	1.05	high	3
Total		3.76	0.99	High	

Ethical leadership scored highest among the five dimensions ($\bar{X}$ =3.76, S.D.=0.99). Personal integrity and fostering an inclusive culture both received ($\bar{X}$ =3.81). The lowest scores ($\bar{X}$ =3.70) went to maintaining a transparent accountability system and ensuring equitable resource allocation.

Table 4.6 Mean and standard deviation of the level of leadership style for administrators in Innovative leadership

(n = 205)

	Innovative leadership	$\bar{X}$	S.D.	Level	Order
1	Administrators communicate a forward-looking vision that encourages exploration and experimentation.	3.71	1.08	high	6
2	Administrators foster a psychologically safe climate that tolerates prudent risk-taking and learning from failure.	3.67	1.08	high	7
3	Administrators provide adequate resources (time, funding, training) to support innovative initiatives.	3.67	1.13	high	7
4	Administrators actively encourage and facilitate interdisciplinary and cross-departmental collaboration.	3.81	1.03	high	1
5	Administrators empower individuals and teams through delegation to foster autonomous creativity.	3.78	1.05	high	3
6	Administrators establish effective feedback mechanisms conducive to continuous learning and improvement.	3.72	1.07	high	5
7	Administrators provide timely recognition and reward for both innovation processes and outcomes.	3.77	1.08	high	4
8	Administrators personally demonstrate adaptability and agility in response to change.	3.80	1.04	high	2
Total		3.74	1.03	High	

Innovative leadership averaged ($\bar{X}$ =3.74). (S.D.=1.03). Encouraging cross departmental collaboration rated highest ($\bar{X}$ =3.81). Fostering psychological safety and providing resources for innovation both scored lowest ($\bar{X}$ =3.67).

Table 4.7 Mean and standard deviation of the level of leadership style for administrators in Digital leadership

(n = 205)

	Digital leadership	$\bar{X}$	S.D.	Level	Order
1	Administrators possess the competency to apply key digital technologies within educational contexts.	3.66	1.10	high	8
2	Administrators formulate and proactively champion the institution's digital transformation strategy.	3.78	1.05	high	1
3	Administrators cultivate an organizational culture that values digital collaboration, openness, and knowledge sharing.	3.72	1.10	high	5
4	Administrators support the implementation of agile and virtualized workflows within the organization.	3.68	1.06	high	7
5	Administrators integrate considerations of digital ethics and data security into the institution's practices.	3.73	1.07	high	3
6	Administrators promote the identification, development, and motivation of digitally skilled talent.	3.73	1.09	high	3
7	Administrators advocate for and support innovation in teaching and administration through the use of digital technologies.	3.76	1.06	high	2

Table 4.7 (Continued)

(n = 205)

	Digital leadership	$\bar{X}$	S.D.	Level	Order
8	Administrators establish strategic partnerships and linkages with external digital ecosystems.	3.70	1.09	high	6
9	Administrators systematically evaluate digital progress and continuously refine the digital strategy.	3.65	1.09	high	9
	Total	3.72	1.00	High	

Digital leadership scored ($\bar{X}=3.72$) (S.D.=1.00). The strongest item ($\bar{X}=3.78$) was formulating and championing a digital transformation strategy; the weakest ($\bar{X}=3.65$) was systematically evaluating digital progress and refining the strategy.

While the aggregated data in Tables 4.2 to 4.7 indicate that the leadership styles of administrators in Guizhou's vocational colleges are consistently rated as "high" across all five dimensions, it would be misleading to interpret this uniformity as indicating an absence of variation among institutions. A closer examination of the raw data reveals that the seven participating vocational colleges differ considerably in their institutional histories, resource endowments, strategic priorities, and leadership development trajectories. For instance, colleges with longer-established industry partnerships or more mature digital infrastructure tended to score higher on Digital leadership, whereas those serving remote rural areas with limited Internet access showed relatively lower scores on Information leadership. Similarly, institutions with a strong tradition of Confucian ethical governance often outperformed others on Ethical leadership items related to "personal integrity" and "mutual respect." These background disparities—ranging from leadership turnover rates and faculty composition to the intensity of school-enterprise collaboration—mean that the same aggregate "high" level masks meaningful heterogeneity. Some colleges reached the high threshold through exceptional performance in

Transformational leadership while lagging in digital domains; others achieved the high average through more balanced but modest strengths across all dimensions. Under such conditions, the overall “high” rating should be understood as a collective statistical tendency rather than a claim of institutional equivalence. This nuanced understanding provides a crucial foundation for the qualitative exploration in Part 3, where the interview data will unpack why such variations exist and how they can be addressed through targeted development measures.

Part 3: Interview findings that informed the development model.

Table 4.8 Personal information of the interviewee

Interviewee	Personal information	Interview Date	Interview time
Interviewee 1	Education: Master’s degree Position: Head of department Work experience: 9 years	January31st, 2026	9:00 am GMT +8 ~40 min(avg.)
Interviewee 2	Education: Master’s degree Position: Head of department Work experience: 13 years	January31st, 2026	10:00 am GMT +8 ~40 min (avg.)
Interviewee 3	Education: Master’s degree Position: Head of department Work experience: 22 years	January31st, 2026	11:00 am GMT +8 ~40 min (avg.)
Interviewee 4	Education: Doctoral degree Position: Head of department Work experience: 17 years	January31st, 2026	14:30 pm GMT +8 ~40 min (avg.)
Interviewee 5	Education: Master’s degree Position: Head of department Work experience: 18 years	January31st, 2026	15:30 pm GMT +8 ~40 min (avg.)

Table 4.8 (Continued)

Interviewee	Personal information	Interview Date	Interview time
Interviewee 6	Education: Master's degree Position: Head of department Work experience: 20 years	January 31st, 2026	16:30 pm GMT +8 ~40 min (avg.)
Interviewee 7	Education: Master's degree Position: Head of department Work experience: 25 years	January 31st, 2026	17:20 pm GMT +8 ~40 min (avg.)
Interviewee 8	Education: Master's degree Position: Vice President Work experience: 22 years	February 1st, 2026	9:30 am GMT +8 ~40 min (avg.)
Interviewee 9	Education: Master's degree Position: Head of department Work experience: 18 years	February 1st, 2026	10:30 am GMT +8 ~40 min (avg.)
Interviewee 10	Education: Master's degree Position: Head of department Work experience: 13 years	February 1st, 2026	11:30 am GMT +8 ~40 min (avg.)
Interviewee 11	Education: Master's degree Position: Head of department Work experience: 20 years	February 1st, 2026	14:00 pm GMT +8 ~40 min (avg.)
Interviewee 12	Education: Master's degree Position: Head of department Work experience: 18 years	February 1st, 2026	15:00 pm GMT +8 ~40 min (avg.)
Interviewee 13	Education: Doctoral degree Position: Head of department Work experience: 19 years	February 1st, 2026	16:00 pm GMT +8 ~40 min (avg.)
Interviewee 14	Education: Master's degree Position: Vice President Work experience: 15 years	February 1st, 2026	17:30 pm GMT +8 ~40 min (avg.)

Table 4.8 summarizes the demographic and professional background of the 14 interviewees who participated in the semi-structured interviews. All interviewees held senior administrative positions (e.g., Head of Department, Vice President, President) within vocational colleges in Guizhou. The majority held a Master's degree (12 individuals), while two held Doctorates. Their work experience ranged from 9 to 25 years, with an average of approximately 18 years, indicating a panel of highly experienced practitioners.

Table 4.9 A Leadership Style Development Model for Administrators of Vocational Colleges in Guizhou

Leadership Style Development Model for Guizhou Vocational College Administrators		How to
Information leadership	1 Create a centralized institutional data platform that integrates academic affairs, student affairs, research, logistics, and other related systems. 2 Develop explicit data-sharing policies and a multi-level access control mechanism aimed at breaking down information silos. 3 Set up a dedicated data analysis team (or data application group) and integrate key data indicators into routine decision-making. 4 Implement tiered and categorized digital literacy training for administrators, administrative staff, faculty, and students, supported by corresponding assessment and incentive mechanisms.	

Table 4.9 (Continued)

Leadership Style Development Model for Guizhou Vocational College Administrators	How to
	5 Adopt a “data-driven meetings” mechanism that mandates reporting based on concrete data. 6 Assign part-time information coordinators and establish guidelines for classifying and sharing information. 7 Practice regular “management by walking around” to create systematic bottom-up feedback channels.
Transformational leadership	1 Restructure the performance indicator system to incorporate qualitative developmental outcomes, such as teaching quality, research achievements, professional growth, and pedagogical innovation, into core metrics. 2 Clearly state the tangible benefits that innovation and change offer to individual faculty members (e.g., promotion credits, development opportunities). 3 Create peer support structures such as “teaching communities” and “mentorship programs” to cultivate a supportive atmosphere. 4 Hold regular thematic seminars, workshops, or “conceptual reframing workshops” to stimulate intellectual engagement.

Table 4.9 (Continued)

Leadership Style Development Model for Guizhou Vocational College Administrators	How to
	5 Administrators model desired behaviors, adopting a “follow me” approach instead of a “you go do it” directive style. 6 Bring in outside viewpoints, such as those from industry experts, to question established routines and stimulate “academic debate.”
Ethical leadership	1 Follow the “rules first” principle by setting and announcing clear decision-making criteria and accountability foundations before any actions are taken. 2 Implement a multi-stakeholder review mechanism involving administrators, faculty representatives, and industry experts, utilizing anonymous scoring and cross-review. 3 Achieve complete transparency by making the decision-making process, justifications, and results publicly available, while keeping thorough records. 4 Set up well-functioning channels for appeals, reconsideration, and feedback, with oversight from a third-party committee. 5 Distinguish between “developmental accountability” (focused on improvement) and “reward/punishment accountability” (oriented toward assigning blame).

Table 4.9 (Continued)

Leadership Style Development Model for Guizhou Vocational College Administrators	How to
	6 In situations involving individual differences, reject a “one-size-fits-all” approach and give due consideration to role characteristics and personal circumstances.
Innovative leadership	1 Apply “strategic anchoring” to give priority to innovation projects that closely match the institution’s core mission (e.g., serving local industries). 2 Develop a two-dimensional “value-feasibility” assessment model (or a streamlined evaluation framework) to filter projects using quantitative criteria. 3 Create a “micro-innovation fund” or employ a “phased resource allocation” approach to control risks. 4 Combine and re-energize available resources via cross-departmental sharing, school-industry collaboration, and internal staff reassignment. 5 Establish non-punitive “project retrospectives” or “phase reviews” as standard practice to encourage learning from failures.

Table 4.9 (Continued)

Leadership Style Development Model for Guizhou Vocational College Administrators	How to
	6 Administrators openly share their own mistakes to exemplify “intelligent failure” and foster a psychologically safe climate. 7 Translate innovation results into explicit credits or incentives that are embedded within promotion and performance appraisal systems.
Digital leadership	1 Develop a well-defined digital transformation strategy and actively convey how it relates to individual professional growth. 2 Establish a systematic evaluation mechanism covering process indicators (e.g., platform usage rates) and outcome indicators (e.g., improvements in teaching efficiency). 3 Apply evaluation findings directly during annual strategic reviews to dynamically shift training priorities and resource distribution. 4 Provide “task-driven” or “workshop-style” training that centers on real-world situations, including professional title evaluation and project proposal writing. 5 Use collaborative office platforms to establish time limits and automatic notifications for information sharing, thus improving process efficiency.

Table 4.9 (Continued)

Leadership Style Development Model for Guizhou Vocational College Administrators	How to
	6 Build a culture of digital collaboration by creating cross-departmental digital projects and rewarding teams that succeed. 7 Integrate digital collaboration results and resource-sharing inputs into performance appraisals or promotion credit frameworks.

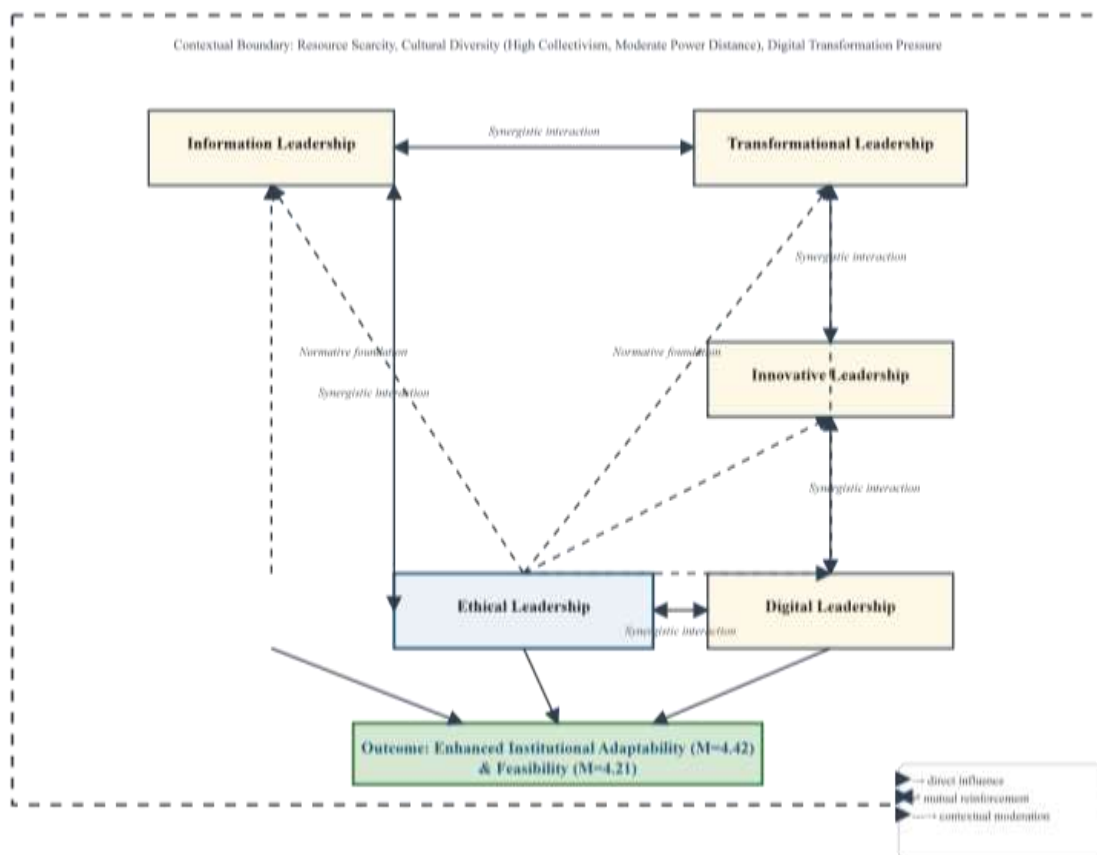


Figure 4.1 Five-dimensional leadership development model

Figure 4.1 Five-dimensional leadership development model for administrators in Guizhou's vocational colleges. The outer dashed box represents the contextual boundary identified in Chapter 1 (resource scarcity, cultural diversity, digital transformation). The five core dimensions are linked by synergistic relationships (double-headed arrows), with Ethical leadership serving as the normative foundation. The model's ultimate purpose—evaluated by experts in Phase 3—is to enhance institutional adaptability and implementation feasibility.

Part 4: Expert evaluation of the model's adaptability and feasibility, reported as means and standard deviations.

Table 4.10 Mean and standard deviation of the adaptability and feasibility of development model of leadership style for administrators in Vocational Colleges in Guizhou in 5 aspects

(n = 12)

The development model of leadership style for administrators in Vocational Colleges in Guizhou		Adaptability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
1	Information leadership	4.43	0.64	high	4.16	0.84	high
2	Transformational leadership	4.30	0.81	high	4.04	0.83	high
3	Ethical leadership	4.50	0.55	highest	4.33	0.64	high
4	Innovative leadership	4.38	0.76	high	4.22	0.81	high
5	Digital leadership	4.51	0.60	highest	4.30	0.75	high
Total		4.42	0.67	high	4.21	0.77	high

Table 4.10 shows that experts rated the model's adaptability high across all five dimensions (overall $\bar{X}$ = 4.42, S.D. = 0.67). Among the five dimensions, Digital leadership exhibited the highest level of adaptability ($\bar{X}$ = 4.51), closely followed by Ethical leadership ($\bar{X}$ = 4.50). In contrast, Transformational leadership received the lowest adaptability rating, though it still remained at a high level ($\bar{X}$ = 4.30).

The feasibility of the development leadership style model was also evaluated as high across all five dimensions, with mean scores ranging from 4.04 to 4.33. The overall mean feasibility was at a high level ($\bar{X}=4.21$). Ethical leadership was rated as having the highest feasibility ($\bar{X}=4.33$), followed by Digital leadership ($\bar{X}=4.30$). Consistent with the adaptability findings, Transformational leadership received the lowest feasibility rating, though it was still considered high ($\bar{X}=4.04$).

Table 4.11 Mean and standard deviation of the adaptability and feasibility of development model of leadership style for administrators in Vocational Colleges in Guizhou in Information leadership

(n = 12)

Information leadership		Adaptability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
1	Create a centralized institutional data platform that integrates academic affairs, student affairs, research, logistics, and other related systems.	4.33	0.49	high	4.25	0.62	high
2	Develop explicit data-sharing policies and a multi-level access control mechanism aimed at breaking down information silos.	4.42	0.51	high	4.25	0.87	high
3	Set up a dedicated data analysis team (or data application group) and integrate key data indicators into routine decision-making.	4.25	0.62	high	3.92	0.79	high

Table 4.11 (Continued)

(n = 12)

Information leadership		Adaptability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
4	Implement tiered and categorized digital literacy training for administrators, administrative staff, faculty, and students, supported by corresponding assessment and incentive mechanisms.	4.42	0.67	high	4.42	0.67	high
5	Adopt a “data-driven meetings” mechanism that mandates reporting based on concrete data.	4.25	0.75	high	3.92	0.79	high
6	Assign part-time information coordinators and establish guidelines for classifying and sharing information.	4.00	0.74	high	3.83	0.83	high
7	Practice regular “management by walking around” to create systematic bottom-up feedback channels.	4.33	0.49	high	4.00	0.95	high
Total		4.43	0.64	high	4.16	0.84	high

Table 4.11 shows that Information Leadership’s adaptability was high across all seven measures (range 4.00–4.42; overall $\bar{X}$ = 4.43). The highest-rated item was “Implement tiered and categorized digital literacy training for administrators, administrative staff, faculty, and students, supported by corresponding assessment and incentive mechanisms” ($\bar{X}$ = 4.42), followed by “Develop explicit data-sharing policies and a multi-level access control mechanism aimed at breaking down information silos” ($\bar{X}$ = 4.42). In contrast, the lowest-rated item was “Assign part-time

information coordinators and establish guidelines for classifying and sharing information” ($\bar{X}=4.00$). The Information Leadership dimension of the model showed satisfactory adaptability, with particularly strong endorsement for structured training initiatives and formal data governance mechanisms.

The feasibility of implementing the proposed measures within the Information leadership dimension was similarly assessed, with results also detailed in Table 4.11. The overall feasibility of this dimension reached a high level, achieving a composite mean of 4.16, with individual item scores ranging from 3.83 to 4.42. The item “Implement tiered and categorized digital literacy training for administrators, administrative staff, faculty, and students, supported by corresponding assessment and incentive mechanisms” received the highest feasibility rating ($\bar{X}=4.42$), followed by “Develop explicit data-sharing policies and a multi-level access control mechanism aimed at breaking down information silos” ($\bar{X}=4.25$). Conversely, the item “Assign part-time information coordinators and establish guidelines for classifying and sharing information” obtained the lowest feasibility score ($\bar{X}=3.83$). These outcomes suggest that while all seven measures are considered feasible for practical application, those involving structured training programs and formal data-sharing protocols are viewed as particularly actionable, whereas measures requiring dedicated personnel appointments may present greater implementation challenges within the existing institutional context of Guizhou’s vocational colleges.

Table 4.12 Mean and standard deviation of the adaptability and feasibility of development model of leadership style for administrators in Vocational Colleges in Guizhou in Transformational leadership

(n = 12)

Transformational leadership		Adaptability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
1	Restructure the performance indicator system to incorporate qualitative developmental outcomes, such as teaching quality, research achievements, professional growth, and pedagogical innovation, into core metrics.	4.50	0.67	highest	4.17	0.58	high
2	Clearly state the tangible benefits that innovation and change offer to individual faculty members (e.g., promotion credits, development opportunities).	4.25	0.75	high	4.00	0.74	high
3	Create peer support structures such as “teaching communities” and “mentorship programs” to cultivate a supportive atmosphere.	4.33	0.65	high	4.25	0.62	high
4	Hold regular thematic seminars, workshops, or “conceptual reframing workshops” to stimulate intellectual engagement.	4.58	0.67	highest	4.50	0.52	highest

Table 4.12 (Continued)

(n = 12)

Transformational leadership		Adaptability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
5	Administrators model desired behaviors, adopting a “follow me” approach instead of a “you go do it” directive style.	4.17	1.03	high	3.83	0.84	High
6	Bring in outside viewpoints, such as those from industry experts, to question established routines and stimulate “academic debate.”	3.92	1.08	high	3.92	1.08	high
Total		4.30	0.81	high	4.04	0.83	high

Table 4.12 shows that Transformational Leadership’s adaptability was high across all six measures (range 4.17–4.58; overall $\bar{X}$ = 4.30). The highest-rated item was “Hold regular thematic seminars, workshops, or ‘conceptual reframing workshops’ to stimulate intellectual engagement” ($\bar{X}$ = 4.58), followed by “Restructure the performance indicator system to incorporate qualitative developmental outcomes” ($\bar{X}$ = 4.50). In contrast, the lowest-rated item was “Administrators model desired behaviors, adopting a ‘follow me’ approach instead of a ‘you go do it’ directive style” ($\bar{X}$ = 4.17). Transformational Leadership showed satisfactory adaptability, with strong endorsement for structured intellectual stimulation and systemic performance indicator reforms.

The feasibility of implementing the proposed measures within the Transformational leadership dimension was similarly assessed, with results also detailed in Table 4.12. The overall feasibility of this dimension reached a high level, achieving a composite mean of 4.04, with individual item scores ranging from 3.83 to 4.50. The item “Hold regular thematic seminars, workshops, or “conceptual reframing workshops” to stimulate intellectual engagement” received the highest feasibility

rating ($\bar{X}=4.50$), followed by “Establish mutual support models such as ‘teaching communities’ and ‘mentorship programs’ to foster a supportive environment” ($\bar{X}=4.25$) and “Restructure the performance indicator system to incorporate qualitative developmental outcomes” ($\bar{X}=4.17$). Conversely, the item “Administrators model desired behaviors, adopting a ‘follow me’ approach instead of a ‘you go do it’ directive style” obtained the lowest feasibility score ($\bar{X}=3.83$). These outcomes suggest that while all six measures are considered feasible for practical application, those involving organized developmental activities and collegial support structures are viewed as particularly actionable, whereas measures requiring fundamental shifts in leadership style may encounter greater implementation challenges within the existing institutional culture of Guizhou's vocational colleges.

Table 4.13 Mean and standard deviation of the adaptability and feasibility of development model of leadership style for administrators in Vocational Colleges in Guizhou in Ethical leadership

(n = 12)

Ethical leadership		Adaptability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
1	Follow the “rules first” principle by setting and announcing clear decision-making criteria and accountability foundations before any actions are taken.	4.67	0.49	highest	4.33	0.49	high
2	Implement a multi-stakeholder review mechanism involving administrators, faculty representatives, and industry experts, utilizing anonymous scoring and cross-review.	4.50	0.67	highest	4.25	0.62	high

Table 4.13 (Continued)

(n = 12)

Ethical leadership		Adaptability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
3	Achieve complete transparency by making the decision-making process, justifications, and results publicly available, while keeping thorough records.	4.25	0.45	high	4.33	0.49	high
4	Set up well-functioning channels for appeals, reconsideration, and feedback, with oversight from a third-party committee.	4.42	0.67	high	4.33	0.65	high
5	Distinguish between “developmental accountability” (focused on improvement) and “reward/punishment accountability” (oriented toward assigning blame).	4.42	0.67	high	4.00	0.74	High
6	In situations involving individual differences, reject a “one-size-fits-all” approach and give due consideration to role characteristics and personal circumstances.	4.50	0.67	highest	4.25	0.75	high
Total		4.50	0.55	highest	4.33	0.64	high

Table 4.13 shows that Ethical leadership’s adaptability was high across all six measures (range 4.42–4.67; overall $\bar{X}$ = 4.50). The highest-rated item was “Follow the ‘rules first’ principle by setting and announcing clear decision-making criteria and accountability foundations before any actions are taken” ($\bar{X}$ = 4.67), followed by

“Implement a multi-stakeholder review mechanism involving administrators, faculty representatives, and industry experts, utilizing anonymous scoring and cross-review” ($\bar{X}=4.50$) and “In situations involving individual differences, reject a ‘one-size-fits-all’ approach and give due consideration to role characteristics and personal circumstances” ($\bar{X}=4.50$). In contrast, the lowest-rated item was “Distinguish between ‘developmental accountability’ and ‘reward/punishment accountability’” ($\bar{X}=4.42$). Ethical leadership showed satisfactory adaptability, with particularly strong endorsement for transparent rule-setting, inclusive review processes, and context-sensitive decision-making.

The feasibility of implementing the proposed measures within the Ethical leadership dimension was similarly assessed, with results also detailed in Table 4.13. The overall feasibility of this dimension reached a high level, achieving a composite mean of 4.33, with individual item scores ranging from 4.00 to 4.33. The items “Follow the ‘rules first’ principle by setting and announcing clear decision-making criteria and accountability foundations before any actions are taken”, “Achieve complete transparency by making the decision-making process, justifications, and results publicly available, while keeping thorough records”, and “Set up well-functioning channels for appeals, reconsideration, and feedback, with oversight from a third-party committee” each received the highest feasibility rating ($\bar{X}=4.33$), followed by “Implement a multi-stakeholder review mechanism” ($\bar{X}=4.25$) and “In situations involving individual differences, reject a ‘one-size-fits-all’ approach and give due consideration to role characteristics and personal circumstances” ($\bar{X}=4.25$). Conversely, the item “Distinguish between ‘developmental accountability’ and ‘reward/punishment accountability’” obtained the lowest feasibility score ($\bar{X}=4.00$). These outcomes suggest that while all six measures are considered feasible for practical application, those involving procedural transparency, stakeholder engagement, and individualized considerations are viewed as particularly actionable, whereas measures requiring nuanced conceptual distinctions between accountability types may present greater implementation challenges within the existing institutional framework of Guizhou’s vocational colleges.

Table 4.14 Mean and standard deviation of the adaptability and feasibility of development model of leadership style for administrators in Vocational Colleges in Guizhou in Innovative leadership

(n = 12)

Innovative leadership		Adaptability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
1	Apply “strategic anchoring” to give priority to innovation projects that closely match the institution’s core mission (e.g., serving local industries).	4.58	0.51	highest	4.50	0.52	highest
2	Develop a two-dimensional “value-feasibility” assessment model (or a streamlined evaluation framework) to filter projects using quantitative criteria.	4.33	0.98	high	4.17	1.03	high
3	Create a “micro-innovation fund” or employ a “phased resource allocation” approach to control risks.	4.42	0.67	high	4.17	0.72	high
4	Combine and re-energize available resources via cross-departmental sharing, school-industry collaboration, and internal staff reassignment.	4.25	0.62	high	4.08	0.67	high
5	Establish non-punitive “project retrospectives” or “phase reviews” as standard practice to encourage learning from failures.	4.25	0.75	high	4.08	0.67	High

Table 4.14 (Continued)

(n = 12)

Innovative leadership		Adaptability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
6	Administrators openly share their own mistakes to exemplify “intelligent failure” and foster a psychologically safe climate.	3.67	1.23	high	3.42	1.24	Medium
7	Translate innovation results into explicit credits or incentives that are embedded within promotion and performance appraisal systems.	4.50	0.52	highest	4.33	0.65	high
Total		4.38	0.76	high	4.22	0.81	high

Table 4.14 shows that Innovative Leadership’s adaptability was high across all seven measures (range 3.67–4.58; overall $\bar{X}$ =4.38). The highest-rated item was “Apply ‘strategic anchoring’ to give priority to innovation projects that closely match the institution’s core mission” ($\bar{X}$ =4.58), followed by “Translate innovation results into explicit credits or incentives that are embedded within promotion and performance appraisal systems” ($\bar{X}$ =4.50). In contrast, the lowest-rated item was “Administrators openly share their own mistakes to exemplify ‘intelligent failure’ and foster a psychologically safe climate” ($\bar{X}$ =3.67). Innovative Leadership showed satisfactory adaptability, with particularly strong endorsement for mission-aligned strategic prioritization and the formal recognition of innovation outcomes, whereas practices involving leader vulnerability and failure discourse are perceived as less adaptable within the current institutional culture.

The feasibility of implementing the proposed measures within the Innovative leadership dimension was similarly assessed, with results also detailed in Table 4.14. The overall feasibility of this dimension reached a high level, achieving a composite

mean of 4.22, with individual item scores ranging from 3.42 to 4.50. The item “Apply ‘strategic anchoring’ to give priority to innovation projects that closely match the institution’s core mission” received the highest feasibility rating ($\bar{X}=4.50$), followed by “Translate innovation results into explicit credits or incentives that are embedded within promotion and performance appraisal systems” ($\bar{X}=4.33$). Conversely, the item “Administrators openly share their own mistakes to exemplify ‘intelligent failure’ and foster a psychologically safe climate” obtained the lowest feasibility score ($\bar{X}=3.42$), which fell within the medium level. These outcomes suggest that while most measures are considered feasible for practical application, those involving strategic alignment and incentive structures are viewed as particularly actionable. However, measures requiring leaders to openly acknowledge personal failures to foster psychological safety may encounter substantial implementation challenges, potentially due to cultural norms surrounding authority, face-saving, and organizational hierarchy within the institutional context of Guizhou’s vocational colleges.

Table 4.15 Mean and standard deviation of the adaptability and feasibility of development model of leadership style for administrators in Vocational Colleges in Guizhou in Digital leadership

(n = 12)

Digital leadership		Adaptability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
1	Develop a well-defined digital transformation strategy and actively convey how it relates to individual professional growth.	4.42	0.67	high	4.08	0.79	high
2	Establish a systematic evaluation mechanism covering process indicators and outcome indicators.	4.33	0.65	high	4.17	0.72	high
3	Apply evaluation findings directly during annual strategic reviews to dynamically shift training priorities and resource distribution.	4.33	0.65	high	4.00	0.85	high
4	Provide “task-driven” or “workshop-style” training that centers on real-world situations, including professional title evaluation and project proposal writing.	4.58	0.67	high	4.25	0.75	high
5	Use collaborative office platforms to establish time limits and automatic notifications for information sharing, thus improving process efficiency.	4.42	0.67	high	4.2	0.67	High

Table 4.15 (Continued)

(n = 12)

Digital leadership		Adaptability			Feasibility		
		$\bar{X}$	S.D.	Level	$\bar{X}$	S.D.	Level
6	Build a culture of digital collaboration by creating cross-departmental digital projects and rewarding teams that succeed.	4.25	0.62	high	4.42	0.79	high
7	Integrate digital collaboration results and resource-sharing inputs into performance appraisals or promotion credit frameworks.	4.50	0.52	high	4.33	0.65	high
Total		4.51	0.60	highest	4.30	0.75	high

Table 4.15 shows that Digital leadership's adaptability was high across all seven measures (range 4.25–4.58; overall $\bar{X}$ = 4.51). The highest-rated item was "Provide 'task-driven' or 'workshop-style' training that centers on real-world situations" ($\bar{X}$ = 4.58), followed by "Integrate digital collaboration results and resource-sharing inputs into performance appraisals or promotion credit frameworks" ($\bar{X}$ = 4.50) and "Develop a well-defined digital transformation strategy and actively convey how it relates to individual professional growth" ($\bar{X}$ = 4.42). In contrast, the lowest-rated items were "Establish a systematic evaluation mechanism covering process indicators and outcome indicators" ($\bar{X}$ = 4.33) and "Apply evaluation findings directly during annual strategic reviews to dynamically shift training priorities and resource distribution" ($\bar{X}$ = 4.33). Digital leadership showed satisfactory adaptability, with particularly strong endorsement for practical, scenario-based training initiatives and the integration of digital contributions into formal recognition systems, whereas systematic evaluation mechanisms and data-driven strategic adjustments are perceived as somewhat less adaptable within the current institutional context.

The feasibility of implementing the proposed measures within the Digital leadership dimension was similarly assessed, with results also detailed in Table 4.15. The overall feasibility of this dimension reached a high level, achieving a composite mean of 4.30, with individual item scores ranging from 4.00 to 4.42. The item “Integrate digital collaboration results and resource-sharing inputs into performance appraisals or promotion credit frameworks” received the highest feasibility rating ($\bar{X}=4.33$), followed by “Build a culture of digital collaboration by creating cross-departmental digital projects and rewarding teams that succeed” ($\bar{X}=4.42$) and “Provide ‘task-driven’ or ‘workshop-style’ training that centers on real-world situations” ($\bar{X}=4.25$). Conversely, the item “Apply evaluation findings directly during annual strategic reviews to dynamically shift training priorities and resource distribution” obtained the lowest feasibility score ($\bar{X}=4.00$). These outcomes suggest that while all seven measures are considered feasible for practical application, those involving the recognition of digital contributions, collaborative project design, and practical skills training are viewed as particularly actionable. However, measures requiring the systematic integration of evaluation data into strategic decision-making processes may encounter greater implementation challenges, potentially due to limitations in existing data infrastructure, analytical capacity, or institutional readiness for evidence-based dynamic adjustment within the organizational context of Guizhou’s vocational colleges.

Summary of Key Findings

In summary, the quantitative results (Part 2) show a “high” overall leadership level ($\bar{X}=3.73$, S.D.=1.01), with Ethical leadership highest and Information/Digital lowest. Standard deviations between 0.99 and 1.05 reveal substantial inter-college variation (see Chapter 5). The qualitative findings (Part 3) produced a 33-measure model (Table 4.9, Figure 4.1). Expert evaluation (Part 4) confirmed the model’s strong adaptability ($\bar{X}=4.42$) and feasibility ($M=4.21$), with Digital leadership judged most adaptable ($\bar{X}=4.51$). Thus, while administrators are seen as ethically and transformationally competent, there is clear room to grow in information and Digital leadership. Figure 4.1 offers a systematic pathway for that growth.

Chapter 5

Discussion Conclusion and Recommendations

This study pursued three aims: 1) to assess the current levels and developmental needs of leadership competencies among administrators in Guizhou's vocational colleges; 2) to develop an integrated, context sensitive leadership model that addresses those needs; and 3) to evaluate the model's theoretical adaptability and practical feasibility.

Conclusion

This study developed a leadership style model for administrators in Guizhou's vocational colleges. The empirical findings are organized into three integrated components that form a coherent explanatory and developmental framework:

Part 1: Current leadership levels among administrators in Guizhou's vocational colleges.

Part 2: A leadership style model tailored to these administrators.

Part 3: The model's adaptability and feasibility in practice.

Although this study was not designed to test causal hypotheses, the observed patterns support three of the four theoretical propositions from Chapter 2. Specifically, Ethical leadership measures received high feasibility ratings, while items about leaders openly reviewing their own mistakes scored low. Specifically, the empirical findings are highly consistent with Proposition 1 (Cultural Embeddedness Effect) and Proposition 3 (Substitution Effect); in addition, the score gap between administrative Digital leadership and adaptive Digital leadership provides partial empirical evidence for Proposition 2.

Part 1: Current leadership levels among administrators in Guizhou's vocational colleges.

The current levels of leadership style for administrators in vocational colleges in Guizhou was at a high level in five aspects.

Summary of Findings

Teachers rated all five leadership dimensions as “high.” Ethical leadership scored highest, followed by Innovative and Transformational, with Information and Digital lowest. Standard deviations (0.99–1.05) revealed substantial variation across colleges. Within each dimension, the weakest items were: transparent information sharing (Information), intellectual stimulation (Transformational), accountability system transparency (Ethical), psychological safety (Innovative), and systematic evaluation of digital progress (Digital).

From the interview findings, this study constructed a leadership model with 33 actionable measures distributed across five dimensions: Information leadership (7 measures), Transformational leadership (6), Ethical leadership (6), Innovative leadership (7), and Digital leadership (7). Table 4.9 and Figure 4.1 present the model.

Expert evaluation confirmed high adaptability and feasibility of the model. Digital leadership received the highest adaptability rating, followed by Ethical leadership. Transformational leadership received the lowest but still high ratings. Within dimensions, “task-driven digital training” and “strategic anchoring for innovation” were rated most feasible, while “Administrators openly share their own mistakes” received the lowest feasibility.

The overall evaluation of the leadership style model was at a high level.

However, the relatively high evaluation scores across leadership dimensions should be interpreted cautiously. Within highly policy-oriented educational systems, administrators may demonstrate strong normative agreement with desirable leadership constructs even when practical implementation capacity remains uneven across institutional contexts. Consequently, high perceptual endorsement does not necessarily imply equivalent organizational operationalization.

This distinction is particularly important in vocational colleges undergoing transitional modernization, where strategic recognition of leadership expectations may develop more rapidly than institutional capability for large-scale organizational transformation.

Part 2: A leadership style model tailored to these administrators.

From the interviews, this study derived 33 measures grouped into five dimensions. Information leadership includes 7 measures, Transformational leadership includes 6 measures, Ethical leadership includes 6 measures, Innovative leadership includes 7 measures, and Digital leadership includes 7 measures.

Information leadership includes 7 measures, as follows: 1) Create a centralized institutional data platform that integrates academic affairs, student affairs, research, logistics, and other related systems; 2) Develop explicit data-sharing policies and a multi-level access control mechanism aimed at breaking down information silos; 3) Set up a dedicated data analysis team (or data application group) and integrate key data indicators into routine decision-making; 4) Implement tiered and categorized digital literacy training for administrators, administrative staff, faculty, and students, supported by corresponding assessment and incentive mechanisms; 5) Adopt a “data-driven meetings” mechanism that mandates reporting based on concrete data; 6) Assign part-time information coordinators and establish guidelines for classifying and sharing information; 7) Practice regular “management by walking around” to create systematic bottom-up feedback channels.

Transformational leadership includes 6 measures, as follows: 1) Restructure the performance indicator system to incorporate qualitative developmental outcomes, such as teaching quality, research achievements, professional growth, and pedagogical innovation, into core metrics; 2) Clearly state the tangible benefits that innovation and change offer to individual faculty members (e.g., promotion credits, development opportunities); 3) Create peer support structures such as “teaching communities” and “mentorship programs” to cultivate a supportive atmosphere; 4) Hold regular thematic seminars, workshops, or “conceptual reframing workshops” to stimulate intellectual engagement; 5) Administrators model desired behaviors, adopting a “follow me” approach instead of a “you go do it” directive style; 6) Bring in outside viewpoints, such as those from industry experts, to question established routines and stimulate “academic debate”.

Ethical leadership includes 6 measures, as follows: 1) Follow the “rules first” principle by setting and announcing clear decision-making criteria and accountability foundations before any actions are taken; 2) Implement a multi-stakeholder review mechanism involving administrators, faculty representatives, and industry experts, utilizing anonymous scoring and cross-review; 3) Achieve complete transparency by making the decision-making process, justifications, and results publicly available, while keeping thorough records; 4) Set up well-functioning channels for appeals, reconsideration, and feedback, with oversight from a third-party committee; 5) Distinguish between “developmental accountability” (focused on improvement) and “reward/punishment accountability” (oriented toward assigning blame); 6) In situations involving individual differences, reject a “one-size-fits-all” approach and give due consideration to role characteristics and personal circumstances.

Innovative leadership includes 7 measures, as follows: 1) Apply “strategic anchoring” to give priority to innovation projects that closely match the institution’s core mission (e.g., serving local industries); 2) Develop a two-dimensional “value-feasibility” assessment model (or a streamlined evaluation framework) to filter projects using quantitative criteria; 3) Create a “micro-innovation fund” or employ a “phased resource allocation” approach to control risks; 4) Combine and re-energize available resources via cross-departmental sharing, school-industry collaboration, and internal staff reassignment; 5) Establish non-punitive “project retrospectives” or “phase reviews” as standard practice to encourage learning from failures; 6) Administrators openly share their own mistakes to exemplify “intelligent failure” and foster a psychologically safe climate; 7) Translate innovation results into explicit credits or incentives that are embedded within promotion and performance appraisal systems.

Digital leadership includes 7 measures, as follows: 1) Develop a well-defined digital transformation strategy and actively convey how it relates to individual professional growth; 2) Establish a systematic evaluation mechanism covering process indicators (e.g., platform usage rates) and outcome indicators (e.g., improvements in teaching efficiency); 3) Apply evaluation findings directly during annual strategic

reviews to dynamically shift training priorities and resource distribution; 4) Provide “task-driven” or “workshop-style” training that centers on real-world situations, including professional title evaluation and project proposal writing; 5) Use collaborative office platforms to establish time limits and automatic notifications for information sharing, thus improving process efficiency; 6) Build a culture of digital collaboration by creating cross-departmental digital projects and rewarding teams that succeed; 7) Integrate digital collaboration results and resource-sharing inputs into performance appraisals or promotion credit frameworks.

Part 3: The model’s adaptability and feasibility in practice.

Expert evaluators rated the model’s adaptability and feasibility as high across all five dimensions (see Table 4.10). Digital leadership received the highest adaptability score, followed closely by Ethical leadership. Feasibility followed a similar pattern, with Ethical leadership rated most feasible and Digital leadership second.

Within each dimension, specific measures stood out. For Information leadership, the most adaptable measure was tiered digital literacy training; the least was appointing part time information coordinators. For Transformational leadership, thematic seminars rated highest, while “Administrators model desired behaviors” rated lowest. For Ethical leadership, “rules first” was most adaptable; differentiating accountability types was least. For Innovative leadership, strategic anchoring scored highest; Administrators openly share their own mistakes scored lowest. For Digital leadership, task driven training was most adaptable; using evaluation results to adjust strategy was least.

The detailed item level results are presented in Tables 4.11–4.15.

The analysis indicates that administrators in vocational colleges in Guizhou demonstrate high levels of leadership competence across all five dimensions, with Ethical leadership rated the highest, while Information leadership and Digital leadership are comparatively lower. The proposed leadership development model, derived from expert interview data, received strong endorsement in terms of both adaptability and feasibility, with the Digital leadership and Ethical leadership

dimensions achieving particularly high evaluations. However, certain strategies, such as administrators openly share personal mistakes and systematically integrating external perspectives, were perceived as less feasible, suggesting the presence of institutional, structural, and cultural constraints that may inhibit their practical implementation.

Discussion

The results are discussed below, organized according to the same three parts as the conclusion.

Part 1: Current leadership levels among administrators in Guizhou's vocational colleges.

Part 2: A leadership style model tailored to these administrators.

Part 3: The model's adaptability and feasibility in practice.

Part 1: Current leadership levels among administrators in Guizhou's vocational colleges.

The results showed that the overall level of leadership style among administrators in Guizhou's vocational colleges fell within the "high" range across all five dimensions. Ethical leadership attained the highest mean score, followed by Innovative leadership and Transformational leadership, while Information leadership and Digital leadership registered comparatively lower yet still elevated scores. This configuration reveals a discernible structural differentiation: value oriented dimensions (Ethical, Innovative, Transformational) form an upper tier, whereas technology oriented dimensions (Information, Digital) constitute a lower—but still high—tier.

The prominence of Ethical leadership: cultural and institutional explanations

The strong performance of Ethical leadership can be understood through the lens of Confucian administrative culture. In the Chinese context, leadership legitimacy is traditionally derived from moral exemplarity (*shen jiao*) rather than purely technical competence. Administrators who demonstrate integrity, fairness, and

altruistic concern align with deeply embedded cultural expectations, which explains why faculty rate them highly even when technological competencies lag. This cultural preference does not negate the importance of Digital leadership but suggests that ethical grounding serves as a prerequisite for legitimacy; without it, digital initiatives may lack organizational trust and support.

This pattern reflects Bush's (2003) theoretical paradigms of educational management. The ascendancy of Ethical leadership indicates the dominance of both the "formal model" (emphasizing hierarchical authority, rational procedures, and accountability) and the "collegial model" (emphasizing consensus building and shared norms). In highly institutionalized public education contexts, these paradigms privilege ethical considerations as central to organizational effectiveness rather than as discretionary leadership virtues.

Wu Dongfang and Si Xiaohong's (2019) distinction between technical rationality and value rationality offers another lens. The empirical data suggest that at the level of leadership practice, value rationality currently enjoys stronger institutional anchoring and cultural resonance than technical instrumentality. Ethical norms have been sedimented through decades of educational governance discourse emphasizing "virtuous leadership" and "rule of virtue"—concepts deeply rooted in Confucian administrative traditions (Li & Shi, 2005). This institutionalization trajectory explains why value oriented dimensions outpace technology oriented dimensions despite the latter's strategic importance.

Fullan's (2007) model of sustainable improvement—requiring policy coherence, reculturing, and capacity building—further illuminates the findings. The high performance in Ethical and Transformational leadership indicates substantial progress in policy coherence and normative reculturing. However, the comparatively lower performance in Information and Digital leadership suggests that capacity building in technological domains remains at an earlier institutionalization stage. This uneven development across Fullan's three mechanisms is theoretically expected rather than anomalous.

The moral person versus moral manager distinction

Within Ethical leadership, the highest rated items were “demonstrate personal integrity and strong moral character” and “actively cultivate an organizational culture characterized by mutual respect and inclusion,” whereas the lowest rated items were “establish and maintain a transparent and credible accountability system” and “ensure equitable and justified resource allocation.” This pattern reflects Brown, Trevino, and Harrison’s (2005) dual dimensional framework: the “moral person” (integrity, care) is strongly manifested, while the “moral manager” (institutionalizing ethics through systems and accountability) is less developed. Trevino, Brown, and Hartman (2003) warned that reliance on individual leader integrity alone renders ethical governance precarious and non scalable; the item level differential in this study empirically supports their concern.

In the Chinese context, Li and Shi (2005) demonstrated that legitimate authority derives from moral exemplarity rather than positional power alone, and that administrative effectiveness is cognitively fused with moral integrity. Consequently, when responding to leadership assessment instruments, evaluators do not sharply differentiate between “being ethical” and “being effective.” This cultural cognitive fusion further explains why the moral person dimension receives higher ratings than the moral manager dimension.

Ethical leadership as a compensatory mechanism under resource scarcity

Tschannen Moran’s (2004) trust theory provides additional insight. The contextual analysis documented severe resource constraints: as documented in Chapter 1, per student funding remains at only 66% of the national average, with similar deficits in instructor qualifications and equipment. Under such resource scarce conditions, conventional material incentives and infrastructural endowments are insufficient. Administrators must rely disproportionately on normative influence, trust based relationships, and procedural fairness to mobilize organizational members. Ethical leadership thus functions as an adaptive compensatory mechanism—a “substitute for leadership” (Kerr & Jermier, 1978) that becomes particularly vital when transactional resources are constrained. This finding contributes to the cross

cultural leadership literature by specifying how Confucian ethical traditions shape the prioritization of leadership dimensions in transitional economies, where moral legitimacy often precedes technical competence in establishing leader credibility.

The prominence of Ethical leadership can also be illuminated through Servant Leadership (Greenleaf, 1977). Administrators' high performance in cultivating mutual respect and inclusion and displaying altruistic concern toward the community operationalizes the servant leader's commitment to stewardship and community building. Under severe resource constraints, normative and relational governance substitutes for material incentives: leaders who serve effectively generate trust based commitment that transcends transactional limitations.

Contextual embeddedness and asynchronous development

Hallinger's (2011) Leadership for Learning model emphasizes that leadership must be embedded in the open system of schools and their broader community environment. The high performance of Guizhou's administrators in Ethical leadership indicates successful contextual embeddedness: they have adapted their leadership behaviors to an institutional environment characterized by strong policy mandates for administrative probity, professional norms emphasizing procedural justice, and deep cultural schemas conflating moral exemplarity with legitimate authority. This contextual calibration is not a concession to particularism but rather the specification of boundary conditions that transform abstract universal principles into practically actionable knowledge.

Kotter's (1996) eight stage change leadership model is also relevant. The high performance in Ethical leadership indicates that the normative foundations for change have been successfully institutionalized, whereas the comparatively lower performance in Information and Digital leadership suggests that these institutions are at earlier stages of technological transformation. This asynchronous development—normative consensus preceding technical capacity building—is theoretically consistent with Kotter's stage model in highly institutionalized public organizations.

From a broader organizational transformation perspective, the uneven development among leadership dimensions reflects a transitional governance pattern

rather than a simple competency imbalance. Ethical and Transformational leadership are more compatible with traditional educational governance structures that emphasize stability, collective responsibility, and normative legitimacy. By contrast, information and Digital leadership often require decentralized coordination, rapid experimentation, and data driven adaptation, which may challenge existing administrative routines and institutional cultures. Thus, the comparatively lower performance of technology oriented dimensions should not be interpreted as leadership deficiency alone; rather, it indicates that Guizhou's vocational colleges are positioned in an intermediate stage of organizational transformation where normative governance modernization precedes full technological institutionalization.

Robinson's (2011) meta analytic findings offer a final perspective: student centered leadership, which focuses on instructional improvement, has a significantly larger effect size on student outcomes than general management practices. The high performance in Ethical and Transformational leadership—both emphasizing leader modeling and organizational culture cultivation—suggests that Guizhou's administrators are prioritizing leadership behaviors that Robinson identified as most consequential for educational outcomes. Their comparatively lower performance in Information and Digital leadership may therefore reflect a rational allocation of developmental attention rather than a competency deficit per se.

Interpreting the high standard deviations

The relatively high standard deviations (ranging from 0.99 to 1.05 across Tables 4.2 – 4.7) indicate substantial variation in faculty perceptions of their administrators' leadership styles. This dispersion likely reflects the heterogeneous institutional backgrounds of the seven participating colleges (as noted on page 67). Colleges with stronger digital infrastructure or longer-established industry partnerships may have lower variance on Digital leadership items, whereas those with wide intra-institutional disparities in digital literacy exhibit higher variance. Likewise, institutions with strong Confucian ethical traditions may show less variation in Ethical leadership ratings because those norms are more uniformly internalized.

This variation in internal benchmarks cautions against interpreting the overall “high” rating as evidence of equivalent leadership excellence across the province; rather, it reflects perceived competence within each college’s own contextual framework. Future research should explore the institutional-level factors—such as leadership turnover rates, faculty composition, school-enterprise collaboration intensity, and prior investment in digital infrastructure—that moderate this variability.

Part 2: A leadership style model tailored to these administrators.

The proposed Ethical leadership dimension consists of six systematically interlocked measures: 1) Administrators demonstrate personal integrity and strong moral character in their actions and values; 2) Administrators adhere to principles of fairness and justice in all their decisions and actions; 3) Administrators establish and maintain a transparent and credible accountability system; 4) Administrators actively cultivate an organizational culture characterized by mutual respect and inclusion; 5) Administrators ensure that resource allocation processes are equitable and justified, and outcomes are fair; 6) Administrators display genuine altruistic concern and a sense of moral responsibility towards the community and stakeholders. This dimension exhibits the strongest theoretical coherence among the five and the most pronounced alignment between empirical diagnostic findings and conceptual development prescriptions.

The moral person and moral manager: integrating personal virtue with institutional design

The six measure architecture directly operationalizes Brown, Treviño, and Harrison’s (2005) dual dimensional framework of Ethical leadership. Measures 1 and 6 (integrity, altruistic concern) constitute the moral person dimension—the leader’s stable traits of honesty and care. Measures 2, 3, 4, and 5 (fairness, accountability, inclusive culture, equitable resource allocation) constitute the moral manager dimension—proactive efforts to influence followers’ ethical conduct through communication, reinforcement, and institutional design. Brown and Treviño (2006) underscored that ethical leaders must not only behave ethically themselves but also create a moral cultural atmosphere by communicating ethical guidelines,

implementing reward and punishment mechanisms, and fostering a culture of ethics. The six measure architecture systematically addresses both dimensions, ensuring that Ethical leadership is simultaneously personally embodied and institutionally embedded.

Treviño, Brown, and Hartman (2003) further warned that reliance on individual leader integrity alone renders ethical governance precarious and non scalable; organizations that depend on the personal virtue of a single leader experience ethical fragility. The institutionalization of ethics through formal structures (Measure 2), accountability systems (Measure 3), participatory culture (Measure 4), and equitable resource allocation protocols (Measure 5) transforms Ethical leadership from a personal attribute into an organizational property. This transformation directly addresses the “succession problem” inherent in person centered leadership theories: ethical governance persists beyond the tenure of any individual leader. The six measure architecture thus specifies how Ethical leadership can be rendered durable and scalable through institutional design.

Pluralistic paradigm integration in educational management

Bush’s (2003) typology of educational management paradigms provides another lens. The six measures systematically operationalize multiple paradigmatic logics appropriate to the multi faceted nature of ethical governance challenges. Measures 2 (fairness), 3 (accountability), and 5 (equitable resource allocation) operationalize the formal model’s emphasis on rational procedures, hierarchical accountability, and rule based decision making. Measure 4 (mutual respect and inclusion) operationalizes the collegial model’s emphasis on consensus, shared norms, and participatory culture. Measure 6 (altruistic concern for community) introduces elements of the political model’s recognition that organizations exist within broader stakeholder environments with legitimate claims. Griffiths (2012) championed theoretical pluralism, arguing that educational management paradigms should be selected based on the nature of the problem at hand. The ethical governance challenges facing Guizhou’s vocational colleges are inherently multi

dimensional, requiring precisely such pluralistic paradigm integration rather than mono paradigmatic prescription.

Cultural localization: synthesizing Western rationality with Confucian relational humanism

Li and Shi's (2005) indigenous Chinese leadership research demonstrated that Transformational leadership in the Chinese context incorporates a distinctive "moral modeling" dimension absent from Bass's original four dimensional model—reflecting the Confucian premise that legitimate authority derives from moral exemplarity rather than positional power alone. Measures 1 (personal integrity) and 6 (altruistic concern) directly operationalize this culturally grounded expectation. Chinese Ethical leadership integrates Western theories with indigenous values such as harmony and collectivism, highlighting the importance of "relational ethics." Measures 4 (mutual respect) and 6 (community oriented moral responsibility) reflect this relational orientation. The six measure architecture thus constitutes a theoretically localized Ethical leadership model that synthesizes Western bureaucratic rationality with Confucian relational humanism, ensuring cultural congruence and enhancing organizational members' acceptance and internalization of ethical norms.

Trust as a compensatory mechanism under resource scarcity

Tschannen Moran's (2004) trust theory further illuminates the model. The collaborative effectiveness of educational leaders depends on their ability to establish trust based relationships through openness, benevolence, reliability, competence, and honesty—trust that reduces internal transaction costs. The six measures systematically target the antecedents of organizational trust. Measure 1 (integrity) and Measure 3 (transparency) target honesty and openness. Measure 2 (fairness) and Measure 5 (equitable resource allocation) target reliability and procedural justice. Measure 4 (inclusive culture) and Measure 6 (altruistic concern) target benevolence. The contextual analysis documented severe resource constraints in Guizhou's vocational colleges (per student funding at 66% of the national average, etc.). Under such conditions, material incentives and infrastructural investments are insufficient; administrators must rely disproportionately on trust based relational

governance. The six measure architecture thus functions as an adaptive compensatory mechanism, substituting institutionalized trust for inadequate material resources—consistent with Tschannen Moran’s prediction that trust becomes particularly consequential under conditions of resource scarcity and environmental uncertainty.

Contextual embeddedness and systemic capacity building

Hallinger’s (2011) Leadership for Learning integrated model emphasizes that leadership must be embedded in the open system of schools and their broader community environment. Measure 6 (moral responsibility towards the community and stakeholders) explicitly operationalizes this contextual embeddedness imperative. Vocational colleges in Guizhou are deeply enmeshed in regional economic development strategies, industry partnerships, and rural revitalization imperatives. The six measure architecture recognizes that Ethical leadership cannot be confined to internal organizational processes but must extend to the institution’s role in and responsibility towards its broader environment—distinguishing educational Ethical leadership from corporate Ethical leadership, which predominantly focuses on internal stakeholder relations.

Fullan’s (2007) model of sustainable improvement—requiring policy coherence, reculturing, and capacity building—is also addressed. Measures 2, 3, and 5 (fairness, accountability, equitable resource allocation) contribute to policy coherence by aligning decision making with espoused ethical values. Measures 1, 4, and 6 (integrity, inclusive culture, altruistic concern) contribute to reculturing by shaping the normative and symbolic environment. The institutionalization of these measures through formal structures (Measure 3), participatory processes (Measure 4), and resource allocation protocols (Measure 5) simultaneously builds organizational capacity for sustained ethical governance. Fullan’s model predicts that durable change requires simultaneous progress across all three mechanisms; the six measure architecture provides an integrated pathway for such simultaneous progress.

Diagnostic prescriptive alignment and practical relevance

The six measure architecture directly targets the specific empirical deficits identified in the quantitative diagnostic phase. The lowest rated items within the Ethical leadership dimension were “establish and maintain a transparent and credible accountability system” and “ensure equitable and justified resource allocation.” Measures 3 and 5 directly address these deficits through accountability system institutionalization and resource allocation protocol specification. Kotter (1996) emphasized that effective change leadership requires not only vision articulation but also the systematic removal of barriers to implementation. The diagnostic phase identified specific barriers—opaque accountability mechanisms and perceived inequities in resource distribution—and the development phase formulated targeted measures to remove them. This sequential logic from diagnosis to prescription exemplifies Kotter’s change leadership principles.

Robinson’s (2011) meta analytic findings on effective educational leadership—articulation of clear goals, strategic resourcing, and creation of orderly and supportive environments—are also relevant. Measures 1 and 2 (integrity, fairness) contribute to leader credibility, without which goal articulation lacks motivational force. Measure 5 (equitable resource allocation) directly addresses strategic resourcing. Measures 3 and 4 (accountability, inclusive culture) contribute to orderly and supportive environments. While Robinson’s research focused primarily on instructional leadership, her findings on the necessary conditions for leader effectiveness are directly applicable to the ethical domain: Ethical leadership cannot achieve its intended effects without leader credibility, strategic resource deployment, and supportive organizational climates.

From compliance to value creation: the evolution of Ethical leadership

Kalshoven, Den Hartog, and De Hoogh’s (2011) seven dimensional framework—fairness, integrity, ethical guidance, people orientation, power sharing, role clarification, and concern for sustainability—shows strong convergence with the six measure architecture. Measure 2 (fairness) and Measure 3 (transparency) align with fairness and integrity. Measure 4 (inclusive culture) and Measure 6 (altruistic concern)

align with people orientation and concern for sustainability. Measure 5 (equitable resource allocation) operationalizes power sharing in the material domain. The six measure architecture thus reflects the theoretical evolution of Ethical leadership from a predominantly compliance oriented construct to a proactively value creating construct.

Distributed leadership and cultural congruence

The six measure architecture also embodies principles of Distributed Leadership (Spillane, Halverson & Diamond, 2004), which conceptualizes leadership as a practice stretched over social and situational contexts rather than residing solely in formal position holders. Measures such as “implement a multi stakeholder review mechanism” (Measure 2) and “establish channels for appeals overseen by a third party committee” (Measure 4) deliberately distribute leadership functions across administrators, faculty representatives, and industry experts. This distribution reduces the cognitive and ethical burden on any single leader and enhances the legitimacy of decisions through participatory processes. In Guizhou’s hierarchical cultural context (moderate power distance), distributed ethical governance may be more sustainable than relying on the personal virtue of a single administrator—a finding that contributes to the contextualization of distributed leadership theory in non Western educational settings.

Finally, the six measure architecture indicates sophisticated engagement with Chinese cultural epistemology. The Confucian ethical tradition is fundamentally situationalist: the virtuous person discerns what is appropriate (yi) in light of contextual particulars rather than mechanically applying universal rules. While the six measures establish universalistic procedural frameworks (Measures 2, 3, 5), they do not prescribe rigid uniformity. The qualitative interview data repeatedly emphasized the importance of contextualized judgment in applying ethical principles. This cultural calibration distinguishes the proposed model from decontextualized Ethical leadership frameworks imported from Western corporate contexts. Li and Shi (2005) demonstrated that effective leadership in Chinese contexts requires such cultural calibration. The six measure architecture thus achieves theoretical localization

without sacrificing procedural rationality—a synthesis of Weberian bureaucratic logic and Confucian relational humanism that is both culturally authentic and institutionally robust.

Under such conditions, the Ethical leadership development pathway constructed in this study is not a “value declarative model” that merely exhorts administrators to “be more ethical.” Rather, it is an institutionalized ethical governance model that achieves a systematic transformation pathway progressing from moral principles → institutional mechanisms → organizational behaviors → cultural internalization. This pathway demonstrates clear theoretical rationality grounded in the confluence of Ethical leadership theory, educational management theory, institutional theory, trust theory, and indigenous Chinese leadership research. It simultaneously indicates practical operability calibrated to the specific diagnostic deficits and contextual challenges documented in the study. The six measures are not arbitrary prescriptions but theoretically derived, empirically grounded, and experientially validated responses to the authentic ethical governance challenges confronting administrators in Guizhou’s vocational colleges.

Part 3: The model's adaptability and feasibility in practice.

The proposed leadership development model demonstrated high levels of both adaptability and feasibility across all five dimensions, as assessed by a panel of 12 expert administrators. These evaluation scores substantially exceeded the diagnostic current performance scores reported in Part 1, indicating that while certain leadership competencies remain incompletely institutionalized in practice, the development measures designed to address these gaps are perceived as both contextually appropriate and practically implementable.

Among the five dimensions, Digital leadership attained the highest composite ratings for both adaptability and feasibility, marginally surpassing Ethical leadership, while Transformational leadership received comparatively lower yet still high ratings. This evaluative configuration presents an apparent paradox: in the diagnostic phase, Digital leadership registered the lowest current level scores alongside Information leadership, yet in the evaluative phase, its development measures received the

highest endorsement. Understanding this paradox requires a multi theoretical explanation.

The Digital leadership paradox: low current performance, high rated feasibility

The inversion between Digital leadership's current performance ranking and its future development evaluation signals that the first stage of Kotter's (1996) eight stage model—creating urgency—has been successfully achieved. The low current performance indicates that Guizhou's vocational colleges remain in the early stages of digital transformation, a diagnosis consistent with the contextual analysis: digital infrastructure is expanding (provincial virtual simulation training base covers 80% of VET schools; "Guizhou VET Cloud" supports 120 million data points), but the institutionalization of digital governance practices remains incomplete. However, the high evaluation of development measures indicates that administrators universally recognize digital transformation as an unavoidable institutional imperative. Once urgency is established, implementation measures addressing that urgency are favorably evaluated regardless of current performance levels.

From a broader institutional transformation perspective, this paradox suggests that Guizhou's vocational colleges are positioned in an intermediate modernization stage characterized by high transformation awareness but incomplete implementation capacity. Cognitive acceptance of reform often precedes full institutionalization of operational capability—a common pattern in late developing educational systems undergoing accelerated modernization.

Fullan's (2007) concept of policy coherence provides another explanation. The contextual analysis documented the profound penetration of digitalization imperatives into Guizhou's policy environment: the "East Data West Computing" initiative, the designation of Guizhou as a national computing hub, the provincial "Smart VET" platform, and the State Council's New Document No. 2 explicitly encouraging digital economy innovation zones and China ASEAN vocational education cooperation. This dense policy infrastructure constitutes precisely the policy coherence that Fullan identified as prerequisite for sustainable educational change. Administrators evaluate Digital leadership development measures highly not

because they perceive current digital competency as adequate, but because they perceive digital transformation as an externally imposed, institutionally irreversible trajectory supported by coherent policy frameworks at both national and provincial levels.

Contextual embeddedness and concrete benefits

Hallinger's (2011) Leadership for Learning model emphasizes that leadership effectiveness depends critically on contextual embeddedness. The Digital leadership development measures—systematic evaluation mechanisms, task driven training, collaborative platform utilization, digital collaboration culture cultivation—were explicitly designed through qualitative inquiry with Guizhou based administrators to address specific local challenges: weak digital infrastructure in rural counties, uneven teacher digital literacy, the imperative to align vocational programs with rapidly expanding big data industries, and the opportunity to leverage existing provincial platforms. The high adaptability ratings demonstrate successful contextual embeddedness; the measures are perceived not as foreign impositions but as indigenous solutions calibrated to local conditions.

Robinson's (2011) meta analytic findings further illuminate the pattern. Leadership interventions that focus on concrete improvement of teaching and learning processes demonstrate significantly larger effect sizes than general management practices. The Digital leadership measures rated most highly—particularly “deliver task driven or workshop style training focused on practical scenarios such as professional title evaluation and project proposal writing”—directly target instructional and professional practice improvement. These are perceived not as abstract technological initiatives but as concrete interventions that enhance teaching quality, streamline administrative processes, and directly benefit faculty professional advancement. Such concretely beneficial interventions receive stronger endorsement than those whose benefits are diffuse or delayed.

Instrumental rationality and evaluability bias

Wu Dongfang and Si Xiaohong's (2019) distinction between technical rationality and value rationality is also relevant. Digital leadership interventions

exhibit three characteristics that enhance their perceived feasibility: strong operability (platform construction, systematic training, process optimization can be specified as clear action steps), quantifiable effectiveness (efficiency gains, process simplification, management transparency can be measured through indicators such as platform usage rates), and visualizable outcomes (performance indicators can be represented in dashboards). Technical rationality—with its emphasis on measurability, predictability, and controllability—more readily generates consensus on implementation feasibility. In contrast, measures from other dimensions, particularly “leaders openly discuss their own failures” (Innovative leadership) and “leaders lead by example” (Transformational leadership), exhibit lower evaluability; their outcomes are intangible, their implementation timeframes protracted, and their causal mechanisms diffuse. The higher feasibility ratings for Digital leadership thus partially reflect an evaluability bias: interventions amenable to clear specification and measurement are perceived as more feasible regardless of their intrinsic implementation difficulty.

Cultural sensitivity and face (mianzi)

The markedly lower feasibility rating for “leaders openly discuss their own failures to model intelligent failure” warrants specific cultural interpretation. In high power distance and collectivist cultural contexts such as Guizhou, public acknowledgment of personal failure by authority figures may be perceived not as transparency but as a loss of face (mianzi) that undermines hierarchical legitimacy. This cultural constraint suggests that while psychological safety is theoretically desirable, its cultivation in Confucian heritage contexts may require indirect pathways—such as anonymized case based learning or third party facilitated retrospectives—rather than direct leader self disclosure. Practitioners in similar cultural settings should consider culturally adapted alternatives—such as anonymized case based learning, third party facilitated retrospectives, or the use of hypothetical scenarios—to promote learning from failure without directly challenging hierarchical authority.

Cross cultural leadership research (House et al., 2004; Hofstede, 1984) explains that China's high power distance and collectivist cultural profile moderate the acceptance of different leadership behaviors. Digital leadership interventions are predominantly framed as technical systemic rather than authority interpersonal. They involve implementing platforms, establishing evaluation mechanisms, delivering training, and adjusting resource allocation—interventions that operate at the level of organizational systems rather than challenging hierarchical authority structures or interpersonal relational patterns. By contrast, measures from other dimensions directly implicate authority dynamics and interpersonal face. “Leaders openly discuss their own failures” contravenes norms of authority infallibility; “introduce external perspectives to challenge entrenched practices” implicitly critiques existing practices. Digital leadership measures, by virtue of their technical framing, circumvent these cultural sensitivities, rendering them more readily adoptable.

Administrative versus adaptive Digital leadership

Complexity Leadership Theory (Uhl Bien, Marion & McKelvey, 2007) distinguishes between administrative leadership (managing operational complexity) and adaptive leadership (fostering innovation and learning in response to emergent challenges). The Digital leadership measures rated most feasible—training delivery, platform utilization, collaborative workflow design—represent administrative leadership responses. They extend existing organizational routines. In contrast, the measure “directly utilize evaluation results in annual strategic reviews to dynamically adjust training focus and resource allocation” requires adaptive leadership—the willingness to modify strategic direction based on evidence, which challenges existing power structures and resource allocation prerogatives. The significantly lower feasibility rating for this adaptive measure reveals that Guizhou's vocational colleges have successfully institutionalized administrative Digital leadership but remain in early stages of adaptive Digital leadership. This is a predictable developmental trajectory: organizations must first stabilize adaptive challenges within administrative structures before they can foster genuine emergent change.

Recognition implementation gap and the nature of digital transformation

Kane et al. (2019), El Sawy et al. (2016), and Wang Ting (2024) have conceptualized Digital leadership as integrating technological literacy, strategic foresight, and cultural transformation capacity. The high overall evaluation of Digital leadership measures indicates that Guizhou's administrators recognize the strategic importance of this multi dimensional competency cluster. However, the within dimension differential between administrative and adaptive measures reveals that recognition of importance does not yet translate into confidence in implementation capacity for the more complex, culturally demanding dimensions of Digital leadership. This gap between strategic recognition and implementation confidence constitutes both a challenge and an opportunity for leadership development programming.

Furthermore, organizational members—including administrators—predominantly conceptualize digitalization as “tool upgrading” rather than “power structure reconstruction.” This cognitive framing reduces perceived threat and institutional resistance. When digital transformation is framed as the introduction of more efficient tools to accomplish existing tasks, it does not challenge existing authority structures or cultural norms. When framed as the systemic integration of evaluation evidence into strategic governance, it implicitly challenges existing decision making prerogatives. The higher feasibility ratings for tool oriented measures and lower ratings for governance oriented measures reflect this cognitive framing differential.

Summary of the Digital leadership paradox

The high evaluation of Digital leadership development measures, juxtaposed with its low current performance, thus reveals not a contradiction but a developmental trajectory. Guizhou's vocational colleges have successfully established the urgency and policy coherence foundations for digital transformation; they have made measurable progress in digital infrastructure and basic competency development; they have designed contextually embedded intervention strategies. However, the transition from administrative Digital leadership to adaptive Digital

leadership—from tool adoption to strategic governance integration, from efficiency enhancement to cultural transformation—remains the next frontier. The evaluation results suggest that administrators perceive this frontier and endorse development measures designed to cross it, even as they acknowledge the greater implementation challenges these adaptive measures entail.

More broadly, the findings suggest that leadership modernization within vocational education represents a process of institutional evolution rather than merely the improvement of individual managerial competencies. Leadership transformation involves the gradual reconfiguration of governance logic, organizational culture, technological adaptation, and administrative coordination simultaneously. Accordingly, leadership development within vocational colleges should not be understood simply as the acquisition of new leadership techniques, but as a deeper transition from stability oriented educational administration toward adaptive and transformation oriented institutional governance.

Caveats and boundary conditions

This study is cross sectional, so causal claims cannot be made. However, the observed patterns suggest plausible mechanisms that future research could test. First, the high feasibility rating for Ethical leadership suggests an indirect pathway through trust: under resource constraints, fairness builds trust, and trust increases willingness to support new initiatives. Second, the differential between task driven training (high feasibility) and using evaluation results to adjust strategy (lower feasibility) supports a stage model of Digital leadership: basic digital habits must be built before evidence based strategic adjustments can take root. Third, the low feasibility of leaders openly discussing failures reflects cultural constraints around face saving in high power distance contexts; culturally adapted pathways (e.g., anonymized case studies) may be more effective.

Interpreting the high standard deviations

The standard deviations ranging from 0.99 to 1.05 across dimensions (see Tables 4.2–4.7) reflect not only individual perceptual differences but also systematic heterogeneity among the seven participating colleges. Colleges with longer

established industry partnerships or more mature digital infrastructure showed lower variance in Digital leadership scores, whereas those serving remote rural areas with limited internet access exhibited higher variance. Similarly, institutions with strong Confucian ethical traditions showed less variation in Ethical leadership ratings, while those lacking such traditions had wider dispersion. This suggests that aggregate “high” ratings mask meaningful institutional diversity. Future research should disaggregate college level factors (e.g., leadership turnover rates, faculty composition, school enterprise collaboration intensity) to explain this variation.

Limitations of the present research design

Several limitations should be acknowledged. First, the sample was limited to 205 teachers from seven colleges in Guizhou Province. While this provides depth and contextual richness, generalizability to other western provinces (e.g., Yunnan, Sichuan) or to economically developed coastal regions is not automatic. Second, all data were collected at a single time point; the study cannot establish causal directions or track how leadership dimensions evolve over time. Third, the study relied on teacher reports of administrator leadership; administrator self perceptions and student outcomes were not examined. Fourth, the cultural explanations (collectivism, power distance, face, Confucian ethics) are specific to China; transferability to other cultural contexts requires empirical testing. Fifth, the expert evaluation was a single round assessment; a full Delphi process with multiple rounds might have produced different consensus levels.

These limitations do not invalidate the findings but define their scope. The proposed leadership development model is best understood as a context sensitive framework for Guizhou’s vocational education sector during a specific historical period of digital transformation and resource constraint. Its transferability to other settings should be empirically tested rather than assumed.

Three Ways This Study Extends the Literature

The findings and the proposed model contribute to the existing literature in three distinctive ways that go beyond merely replicating or confirming prior work.

One contribution is theoretical integration across five dimensions. The five dimensional model is not a mere list of competencies; it deliberately pulls together multiple theoretical strands. Transformational leadership supplies the motivational push for change. Servant leadership informs the ethical dimension by infusing it with an other oriented, caring ethos. Distributed leadership explains why collective action matters more than relying on a single heroic figure at the top. Cross cultural leadership forces the model to attend to Guizhou's specific cultural profile—high collectivism and moderate power distance. Complexity leadership theory helps make sense of the inherent tension between maintaining smooth operations and encouraging adaptive change. Taken together, these five theoretical traditions offer an integrated lens through which leadership is simultaneously motivational, ethical, distributed, culturally grounded, and responsive to change. This theoretical pluralism likely explains why expert evaluators rated the model high in both adaptability and feasibility.

Another is a compound framework for vocational colleges in western China. Most earlier work on leadership in Chinese vocational education examined one or two styles—transformational or Ethical leadership, for example—in isolation. This study instead places five leadership dimensions side by side, examining how information, transformational, ethical, innovative, and Digital leadership can function as an integrated package. The model does not require every administrator to excel in all five dimensions; rather, the five dimensions together constitute a diagnostic tool. If a college scores low on Digital leadership, the model points to specific actionable measures (the seven listed in Table 4.9). As far as can be determined from the literature, such a compound framework has been absent from research on Chinese vocational education.

A third is a culturally grounded construction process rather than post hoc cultural adjustment. Much leadership research imported into China administers Western questionnaires with minimal adaptation. This study took the opposite approach. It started from the practical problems that Guizhou administrators actually talk about in their daily work: how to encourage information sharing when the

unspoken norm treats information as power; how to promote risk taking when making a mistake feels like losing face (*mianzi*). The 33 measures in Table 4.9 were distilled from interviews with 14 experienced administrators, not extracted from a textbook. Consequently, the model fits the local setting not because a “cultural variable” was added at the end of the analysis, but because the entire construction process—from the initial interview protocol to the final development measures—was grounded in Guizhou’s specific conditions: limited resources, ethnic diversity, and the accelerating push for digital transformation.

Finally, more specific contribution: distinguishing administrative from adaptive Digital leadership. The evaluation results in Tables 4.10–4.15 make clear that Digital leadership is not a unitary construct. Measures such as “deliver task driven training” were rated as highly feasible, whereas “directly use evaluation results to adjust strategy” received a much lower feasibility score. This meaningful difference suggests that in a context such as Guizhou, basic digital habits must be built first—getting people comfortable with using platforms and conducting data driven meetings—before they can be expected to make strategic decisions based on evaluation evidence. Complexity leadership theory distinguishes between administrative and adaptive leadership; this study provides a concrete empirical illustration of that distinction in an actual educational setting. This insight may also apply to other provinces in western China, or even to ASEAN countries that remain in the early stages of digital transformation.

These four contributions—theoretical integration, compound framework, culturally grounded construction, and the administrative adaptive distinction in Digital leadership—represent the principal ways in which this study advances the conversation on leadership development in vocational education.

Limitations and Future Research Directions

Several limitations should be acknowledged when interpreting the findings of this study. Rather than being treated as mere methodological weaknesses, however, these limitations also reflect the contextual and developmental complexity inherent in leadership research within transitional vocational education systems.

First, generalizability. The study focused specifically on seven vocational colleges in Guizhou Province. While this context provides valuable insight into leadership development under conditions of resource constraints, cultural diversity, and digital transformation, the findings may not be fully generalizable to vocational institutions in economically developed coastal regions (e.g., Jiangsu, Guangdong) or to those operating under different governance environments. Future research should replicate the five dimension instrument in other western Chinese provinces (e.g., Yunnan, Sichuan) and in ASEAN countries with similar development trajectories.

Second, cross sectional design. All data were collected at a single time point. The study cannot establish causal directions or track how leadership dimensions evolve over time. Leadership modernization within vocational education is a process of institutional evolution, not merely the improvement of individual managerial competencies. Longitudinal studies tracking cohorts of administrators over 3–5 years would be valuable to examine how leadership profiles shift in response to policy changes, technological upgrades, and organizational restructuring.

Third, single source perceptual data. The study relied on teacher reports of administrator leadership; administrator self perceptions and objective student outcomes (e.g., employment rates, skill certification pass rates) were not examined. The high standard deviations suggest that perceptual disagreement among teachers may itself be a meaningful organizational phenomenon. Future research should employ multi source data (administrator self assessment, peer evaluation, student achievement data) and consider using qualitative comparative case studies to explain why the same leadership practices yield differential outcomes across colleges.

Fourth, cultural specificity. The cultural explanations offered—collectivism, power distance, face (mianzi), Confucian ethics—are specific to the Chinese context. Transferability to other cultural settings (e.g., Thailand, Vietnam, or Western countries) should be empirically tested rather than assumed.

Fifth, single round expert evaluation. The expert evaluation was designed as a single round, multi expert feedback assessment rather than a full modified Delphi process. While this was sufficient for establishing face validity and practical credibility

for the present dissertation, future research could extend this work by conducting two additional Delphi rounds to refine the 33 measures further and to assess the stability of expert consensus.

Finally, although this study proposed an integrated five dimensional leadership framework, future research should explore the causal relationships among different leadership dimensions and their long term influence on institutional performance, teacher innovation behavior, and student development outcomes. Quasi experimental intervention studies—implementing the 33 measures systematically over 12–18 months—would be particularly valuable for testing whether the proposed model produces measurable improvements in the five leadership dimensions.

Recommendations

Implications

The findings offer actionable guidance for three stakeholder groups.

For policymakers. Resource allocation alone is insufficient; capacity empowerment matters more. I recommend establishing a provincial leadership competency framework based on the study's five dimensional model and embedding it into appraisal and promotion systems to institutionalize leadership development. A “Digital leadership Pilot Program” should use competitive, action research funding to build data governance and digital strategy skills—not just buy hardware. Ethical governance also needs strengthening: mandate transparency in decision making and resource allocation, turning Ethical leadership from an individual virtue into an institutional norm.

For vocational college leaders. The findings show a pattern of “value oriented strength but technology oriented weakness.” Leaders can institutionalize annual self assessments using the 33 behavioral indicators to create individualized development profiles. They should design personal growth plans targeting two or three priority dimensions—for example, leading a cross departmental digital project to build Digital leadership skills. Importantly, leaders need to actively build distributed leadership

networks by empowering roles such as information coordinators and innovation ambassadors, thereby embedding leadership capacity throughout the institution.

For teacher development and training institutions. The dominant lecture based models require fundamental change. Organize curricula around authentic governance problems—mapping institutional data to dismantle information silos, for instance. To address cultural sensitivities about failure, introduce depersonalized “failure learning” modules using anonymized case studies. Finally, create cross institutional leadership communities through paired partnerships between digitally advanced and developing colleges, focusing on coproducing concrete outputs such as industry demand platforms.

Future Research

Future research should prioritize three directions. First, intervention studies with quasi-experimental designs are needed to test whether the 33 proposed measures, when implemented systematically over 12-18 months, produce measurable improvements in the five leadership dimensions. Second, qualitative comparative case studies should examine why the same leadership practices yield differential outcomes across Guizhou’s seven vocational colleges, with particular attention to institutional variations in digital infrastructure and industry-partnership intensity. Third, cross-cultural replication of the five-dimension instrument in other western Chinese provinces (e.g., Yunnan, Sichuan) would test the model’s generalizability beyond Guizhou’s specific cultural and economic context.

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Appendices

Appendix A

List of Specialists and Letters of Specialists Invitation
for IOC Verification

List of Specialists for IOC Verification

Name	Personal background
Chen Jianlu	Workplace: Tianjin University of Technology and Education Position: teacher Professional title: Professor Education: Doctoral degree Work experience: 26years
Wang Xang	Workplace: Guiyang Preschool Education College Position:teacher Professional title: Professor Education: Doctoral degree Work experience: 15 years
Xie Yanxun	Workplace: Guizhou Minzu University Position: teacher Professional title: Associate Professor Education: Doctoral degree Work experience: 10 years
Long Ying	Workplace: Tongren Preschool Education College Position: teacher Professional title: Associate Professor Education: Doctoral degree Work experience: 9 years
Tang Min	Workplace: Guizhou IndustryPolytechnic College Position: Head of departmen Professional title: Associate Professor Education: Doctoral degree Work experience: 19 years

Appendix B

Official Letter



Ref.No. MHESI 0643.14/ 76

Bansomdejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

March 2026

RE: Invitation to validate research instrument

Dear Professor Dr. Chen Jianlu, Tianjin University of Technology and Education

Mr.Luo Shanchi is a graduate student in the Doctor of Philosophy Program In Educational Administration of Bansomdejchaopraya Rajabhat University. He is undertaking research entitled "The Development of Leadership Style Model for Administrators in Vocational Colleges in Guizhou."

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

With your expertise, we would like to ask your permission to validate the attached research instrument. 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 Acting for the Dean of the Graduate School

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



Ref.No. MHESI 0643.14/ 77

Bansorndejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

March 2026

RE: Invitation to validate research instrument

Dear Professor Dr. Wang Xang, Guiyang Preschool Education College

Mr.Luo Shanchi is a graduate student in the Doctor of Philosophy Program in Educational Administration of Bansorndejchaopraya Rajabhat University. He is undertaking research entitled "The Development of Leadership Style Model for Administrators in Vocational Colleges in Guizhou."

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Ref.No. MI/ESI 0643.14/ 74

Bansorndejchaopraya Rajabhat University
1061 Itsaraphap Hirannuchi
Thonburi Bangkok 10600

March 2026

RE: Invitation to validate research instrument

Dear Assistant Professor Dr. Xie Yanxun, Gulzhou Minzu University

Mr.Luo Shanchi is a graduate student in the Doctor of Philosophy Program in Educational Administration of Bansorndejchaopraya Rajabhat University. He is undertaking research entitled "The Development of Leadership Style Model for Administrators in Vocational Colleges in Gulzhou."

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.

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Sincerely,

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Ref.No. MHEI 0643.14/ 79

Bansomdejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

March 2026

RE: Invitation to validate research instrument

Dear Assistant Professor Dr. Tang Min, Guizhou IndustryPolytechnic College

Mr.Luo Shanchi is a graduate student in the Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. He is undertaking research entitled "The Development of Leadership Style Model for Administrators in Vocational Colleges in Guizhou."

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Vice Dean Acting for the Dean of the Graduate School

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Ref.No. MHEI 0643.14/ 90

Bansorndejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

March 2026

RE: Invitation to validate research instrument

Dear Assistant Professor Zhang Fanggang, Guizhou Communications Polytechnic University

Mr.Luo Shanchi is a graduate student in the Doctor of Philosophy Program in Educational Administration of Bansorndejchaopraya Rajabhat University. He is undertaking research entitled "The Development of Leadership Style Model for Administrators in Vocational Colleges in Guizhou."

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

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

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Vice Dean Acting for the Dean of the Graduate School

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Ref.No. MHESI 0643.14/ 94

Bansorndejchaopraya Rajabhat University
1061 Itsaraparb Hirunrujee
Thonburi Bangkok 10600

March 2026

RE: Request for Data Collection
Dear Sir or Madam

Mr.Luo Shanchi is a graduate student in the Doctor of Philosophy Program in Educational Administration of Bansorndejchaopraya Rajabhat University. He is undertaking research entitled "The Development of Leadership Style Model for Administrators in Vocational Colleges in Guizhou."

The thesis advisory committee has considered that you are an expert in this topic. Your recommendations would be useful for further improvement of this research. 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 Chanchaoren)
Vice Dean Acting for the Dean of the Graduate School

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

List of Universities for Data Collection

No	University / College
1.	Guizhou Technical College of Machinery and Electricity
2.	Guizhou Vocational College of Culture and Tourism
3.	Guizhou Vocational College of Finance and Economics
4.	Guizhou Vocational College of Economics and Business
5.	Guizhou Industry Polytechnic College
6.	Guiyang Healthcare Vocational University
7.	Qiannan Polytechnic for Nationalities

Sincerely,



(Assistant Professor Dr. Tanaput Chanchaen)

Vice Dean Acting for the Dean of the Graduate School



Ref.No. MHESI 0643.14/ 93

Bansomdejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

March 2026

RE: Request for Interview

Dear Sir/Madam

Mr.Luo Shanchi is a graduate student in the Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. He is undertaking research entitled "The

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 experts 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 Chanchaoren)

Vice Dean Acting for the Dean of the Graduate School

Bansomdejchaopraya Rajabhat University

Tel: 662-473-7000

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E-mail: gradabsru.ac.th

List of Universities for Focus Group Discussion

No	Universities / College
1.	Guizhou Technical College of Machinery and Electricity
2.	Guizhou Vocational College of Culture and Tourism
3.	Guizhou Vocational College of Finance and Economics
4.	Guizhou Vocational College of Economics and Business
5.	Guizhou Industry Polytechnic College
6.	Guiyang Healthcare Vocational University
7.	Qianxinan Polytechnic for Nationalities

Sincerely,



(Assistant Professor Dr. Tanaput Chanchaoen)

Vice Dean Acting for the Dean of the Graduate School



Ref.No. MHESI 0643.14/ 81

Bansorndejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

March 2026

RE: Invitation to evaluate the model

Dear Professor Dr. Chen Jianlu, Tianjin University of Technology and Education

Mr.Luo Shanchi is a graduate student in the Doctor of Philosophy Program in Educational Administration of Bansorndejchaopraya Rajabhat University. He is undertaking research entitled "The Development of Leadership Style Model for Administrators in Vocational Colleges in Guizhou."

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

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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Vice Dean Acting for the Dean of the Graduate School

Bansorndejchaopraya Rajabhat University

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Ref.No. MHESI 0643.14/ 42

Bansomdejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

March 2026

RE: Invitation to evaluate the model

Dear Professor Dr. Zeng Jie, Zunyi Normal University

Mr.Luo Shanchi is a graduate student in the Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. He is undertaking research entitled "The Development of Leadership Style Model for Administrators in Vocational Colleges in Gulzhou."

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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Vice Dean Acting for the Dean of the Graduate School

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Ref.No. MHESI 0643.14/ 43

Bansomdejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

March 2026

RE: Invitation to evaluate the model

Dear Professor Dr.Wang Xang, Gulyang Preschool Education College

Mr.Luo Shanchi is a graduate student in the Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. He is undertaking research entitled "The Development of Leadership Style Model for Administrators in Vocational Colleges in Guizhou."

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Vice Dean Acting for the Dean of the Graduate School

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Ref.No. MHESI 0643.14/ 44

Bansomdejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

March 2026

RE: Invitation to evaluate the model

Dear Professor Dr.Pan Junling, Wuhan Technical College of Communications

Mr.Luo Shanchi is a graduate student in the Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. He is undertaking research entitled "The Development of Leadership Style Model for Administrators in Vocational Colleges in Guizhou."

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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Vice Dean Acting for the Dean of the Graduate School

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Ref.No. MHESI 0643.14/ 45

Bansorndejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

March 2026

RE: Invitation to evaluate the model

Dear Professor Ding Ling, Guilzhou Industry Polytechnic College

Mr.Luo Shanchi is a graduate student in the Doctor of Philosophy Program in Educational Administration of Bansorndejchaopraya Rajabhat University. He is undertaking research entitled "The Development of Leadership Style Model for Administrators in Vocational Colleges in Guilzhou."

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.

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Ref.No. MHESI 0643.14/ ๘6

Bansomdejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

March 2026

RE: Invitation to evaluate the model

Dear Assistant Professor Sun Xiaoli, Luoyang Polytechnic

Mr.Luo Shanchi is a graduate student in the Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. He is undertaking research entitled "The Development of Leadership Style Model for Administrators in Vocational Colleges in Guizhou."

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Ref.No. MHESI 0643.14/ 87

Bansomdejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

March 2026

RE: Invitation to evaluate the model

Dear Assistant Professor Dr.Xie Yanxun, Guizhou Minzu University

Mr.Luo Shanchi is a graduate student in the Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. He is undertaking research entitled "The Development of Leadership Style Model for Administrators in Vocational Colleges in Guizhou."

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Ref.No. MHESI 0643.14/ ๑๑

Bansorndejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

March 2026

RE: Invitation to evaluate the model

Dear Assistant Professor Dr. Xu Wei, Chongqing Technology and Business University

Mr.Luo Shanchi is a graduate student in the Doctor of Philosophy Program in Educational Administration of Bansorndejchaopraya Rajabhat University. He is undertaking research entitled "The Development of Leadership Style Model for Administrators in Vocational Colleges in Guizhou."

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Ref.No. MHESI 0643.14/ 99

Bansomdejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

March 2026

RE: Invitation to evaluate the model

Dear Assistant Professor Zhang Fanggang, Guizhou Communications Polytechnic University

Mr.Luo Shanchi is a graduate student in the Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. He is undertaking research entitled "The Development of Leadership Style Model for Administrators in Vocational Colleges in Guizhou."

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Ref.No. MHESI 0643.14/ 90

Bansorndejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

March 2026

RE: Invitation to evaluate the model

Dear Lecturer Dr. Long Ying, Tongren Preschool Education College

Mr.Luo Shanchi is a graduate student in the Doctor of Philosophy Program in Educational Administration of Bansorndejchaopraya Rajabhat University. He is undertaking research entitled "The Development of Leadership Style Model for Administrators in Vocational Colleges in Gulzhou."

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Ref.No. MHESI 0643.14/91

Bansomdejchaopraya Rajabhat University
1061 Itsaraphap Hiranruchi
Thonburi Bangkok 10600

March 2026

RE: Invitation to evaluate the model

Dear Lecturer Ma Yeming, Changsha Social Work College

Mr.Luo Shanchi is a graduate student in the Doctor of Philosophy Program in Educational Administration of Bansomdejchaopraya Rajabhat University. He is undertaking research entitled "The Development of Leadership Style Model for Administrators in Vocational Colleges in Gulzhou."

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

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 Acting for the Dean of the Graduate School

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Ref.No. MHESI 0643.14/ 41

Bansorndejchaopraya Rajabhat University
1061 Itsaraphap Hirannuchi
Thonburi Bangkok 10600

March 2026

RE: Invitation to evaluate the model

Dear Lecturer Ma Can, Chongqing City Management College

Mr.Luo Shanchi is a graduate student in the Doctor of Philosophy Program in Educational Administration of Bansorndejchaopraya Rajabhat University. He is undertaking research entitled "The Development of Leadership Style Model for Administrators in Vocational Colleges in Guizhou."

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Appendix C

Research Instrument

Questionnaire

Title: The Development of Leadership Style Model for Administrators in Vocational Colleges in Guizhou

This questionnaire is divided into two parts:

Part 1: Personal Information

Part 2: Questionnaire on the Assessment of Leadership Styles

Part 1: Personal Information

Instruction: Please tick (✓) in the boxes that represent your actual situation.

1. Gender

☐ Male

☐ Female

2. Age

☐ Under 25 years old

☐ 25 - 30 years old

☐ 31 - 35 years old

☐ Over 35 years old

3. Educational Background

☐ Bachelor's degree or below (including associate diploma)

☐ Master's degree

☐ Doctoral degree

4. Work Experience

- ☐ 1-3 years
- ☐ 4-6 years
- ☐ More than 7 years

Part 2: Questionnaire on the Assessment of Leadership Styles

Definition of Assessment Targets :

This section aims to evaluate the core leadership practices of the management team at your institution. The term "administrators" in this questionnaire specifically refers to administrative cadres within your vocational college, who hold mid-level and senior administrative positions. Their responsibilities encompass strategic planning, organizational coordination, resource allocation, and policy implementation. This typically includes institutional leaders, heads of functional departments (e.g., Academic Affairs, Student Affairs, Human Resources), and department chairs.

Instruction: Please tick (v) in the boxes that represent your level of satisfaction.

- 5 refers to Extremely Satisfied
- 4 refers to Satisfied
- 3 refers to Neither Satisfied nor Dissatisfied
- 2 refers to Dissatisfied
- 1 refers to Extremely Dissatisfied

No	Item	Level of Satisfaction				
		5	4	3	2	1
Information leadership						
1	Administrators manage information as a strategic asset for institutional planning and administration.					
2	Administrators effectively utilize data and evidence in key strategic decision-making.					
3	Administrators actively promote transparent information sharing across all organizational hierarchies.					
4	Administrators systematically implement initiatives to enhance the overall digital literacy of the organization.					
5	Administrators support the integration of technological tools into pedagogical and operational innovation.					
6	Administrators establish effective information governance frameworks to ensure information quality and security.					
7	Administrators are committed to cultivating a data-driven decision-making and learning culture within the organization.					
8	Administrators are capable of transforming information capabilities into a sustained competitive advantage for the institution.					
Transformational leadership						
1	Administrators can articulate a clear and compelling shared vision for the institution’s future development.					
2	Administrators serve as role models in terms of					

No	Item	Level of Satisfaction				
		5	4	3	2	1
	ethical conduct and professional dedication.					
3	Administrators demonstrate genuine concern for the personal well-being and professional growth of staff.					
4	Administrators encourage critical thinking and provide intellectual stimulation to foster growth.					
5	Administrators are capable of inspiring staff to transcend self-interest and commit themselves to the collective objectives of the organization.					
6	Administrators emphasize and demonstrate high moral standards and integrity in their leadership.					
7	Administrators make deliberate efforts to identify and cultivate leadership potential in their subordinates.					
Ethical leadership						
1	Administrators demonstrate personal integrity and strong moral character in their actions and values.					
2	Administrators adhere to principles of fairness and justice in all their decisions and actions.					
3	Administrators establish and maintain a transparent and credible accountability system.					
4	Administrators actively cultivate an organizational culture characterized by mutual respect and inclusion.					
5	Administrators ensure that resource allocation processes are equitable and justified, and outcomes are fair.					
6	Administrators display genuine altruistic concern					

No	Item	Level of Satisfaction				
		5	4	3	2	1
	and a sense of moral responsibility towards the community and stakeholders.					
Innovative leadership						
1	Administrators communicate a forward-looking vision that encourages exploration and experimentation.					
2	Administrators foster a psychologically safe climate that tolerates prudent risk-taking and learning from failure.					
3	Administrators provide adequate resources (time, funding, training) to support innovative initiatives.					
4	Administrators actively encourage and facilitate interdisciplinary and cross-departmental collaboration.					
5	Administrators empower individuals and teams through delegation to foster autonomous creativity.					
6	Administrators establish effective feedback mechanisms conducive to continuous learning and improvement.					
7	Administrators provide timely recognition and reward for both innovation processes and outcomes.					
8	Administrators personally demonstrate adaptability and agility in response to change.					
Digital leadership						
1	Administrators possess the competency to apply key digital technologies within educational					

No	Item	Level of Satisfaction				
		5	4	3	2	1
	contexts.					
2	Administrators formulate and proactively champion the institution's digital transformation strategy.					
3	Administrators cultivate an organizational culture that values digital collaboration, openness, and knowledge sharing.					
4	Administrators support the implementation of agile and virtualized workflows within the organization.					
5	Administrators integrate considerations of digital ethics and data security into the institution's practices.					
6	Administrators promote the identification, development, and motivation of digitally skilled talent.					
7	Administrators advocate for and support innovation in teaching and administration through the use of digital technologies.					
8	Administrators establish strategic partnerships and linkages with external digital ecosystems.					
9	Administrators systematically evaluate digital progress and continuously refine the digital strategy.					

Interview outline of the Development of Leadership Style Model for Administrators in Vocational Colleges in Guizhou

Title The Development of Leadership Style Model for Administrators in Vocational Colleges in Guizhou.

Instruction The objective of this interview is to collect the data about the Development of Leadership Style Model for Administrators in Vocational Colleges in Guizhou.

This semi-structured interview discussion divided into two parts:

Part 1 Personal Information of key informants

Part 2 The interview about the Development of Leadership Style Model for Administrators in Vocational Colleges in Guizhou in five following aspects: 1) Information leadership, 2) Transformational leadership, 3) Ethical leadership, 4) Innovative leadership, and 5) Digital leadership.

This interview is to collect the data to be used useful in research only. Which is an overall analysis without any effect or damage to departments or respondents in any way, but it will benefit for leadership style for administrators in Vocational Colleges in Guizhou. The researchers look forward to your assistance in providing information in this semi-structured interview. I express sincere thanks to you.

Thank you very much

Mr. Luo shanchi

Doctoral Student in Educational Administration

Bansomdejchaopraya Rajabhat University

Interview outline of the Development of Leadership Style Model for Administrators in
Vocational Colleges in Guizhou

Instructions:

The interviews in this research are 14 administrators who represented information-rich cases in Vocational Colleges in Guizhou. Selection criteria ensured depth of experience and contextual relevance: (1) at least five years of administrative experience in Guizhou vocational colleges, (2) possession of a certificate or demonstrated expertise in educational administration, leadership, or innovation, and (3) holding a master's degree or higher.

Part 1: Personal Information of key informants

Name (Interviewee):

Level of Education:

Degree:

College (s) Attended:

Current Work Position:

Work Experience: years

Part 2: Interview outline

Content	Question
Information leadership	1.What are the primary structural or cultural factors influencing the transparent flow of information across different levels in your vocational college? 2.What specific mechanisms or practices could be implemented at the organizational level to enhance the transparency and efficiency of information sharing?
Transformational leadership	1.In the context of vocational education, how should administrators effectively encourage critical thinking and innovative reflection among faculty and staff? 2.Based on your experience, could you share a specific strategy or case in which you provided intellectual stimulation to foster team growth?
Ethical leadership	1. What are the main challenges in establishing and maintaining a transparent and credible accountability system in a vocational college? 2.What mechanisms should be in place to ensure that the accountability system is not only established but also widely recognized and trusted by faculty and staff?
Innovative leadership	1.In a resource-constrained vocational college, how should administrators cultivate an organizational climate that allows for prudent risk-taking and learning from failure?

Content	Question
	2. Could you describe a specific situation in which psychological safety (or the lack thereof) significantly impacted the progress or outcome of an innovation initiative?
Digital leadership	1. During digital transformation, how should vocational colleges establish systematic and ongoing evaluation mechanisms to assess digital progress? 2. How should evaluation results be effectively used to adjust and refine the digital strategy? Please illustrate with an example.

Interviewee 1

1. What are the primary structural or cultural factors influencing the transparent flow of information across different levels in your vocational college?

The interviewee identified a prominent cultural constraint characterized by an “upper-level enthusiasm, mid-level attenuation, and lower-level disengagement” pattern within the organization. This phenomenon stems from significant differences across organizational levels in their recognition of the importance of information sharing. While senior leadership generally places strong emphasis on information collection and utilization, this emphasis tends to weaken during transmission at the middle-management level. As a result, frontline faculty and staff experience limited participation and perceived benefit from information sharing, which in turn undermines effective internal information flow and the formation of a closed feedback loop.

2.What specific mechanisms or practices could be implemented at the organizational level to enhance the transparency and efficiency of information sharing?

The interviewee suggested that, at the institutional level, a unified campus-wide data platform should be established to systematically integrate data from core administrative systems such as academic affairs, student services, and logistics management. Clear rules regarding data access and sharing should be defined to substantively dismantle existing information silos through both institutional and technical means.

In addition, a dedicated data analysis team should be formed, accompanied by a regularized data review mechanism, so that key data indicators are formally embedded in decision-making processes, thereby strengthening the evidence base of managerial decisions.

Furthermore, tiered and differentiated digital literacy training should be implemented, together with corresponding assessment and incentive mechanisms, to institutionally enhance faculty and staff members' digital competencies and data awareness and to ensure the sustainability of information sharing practices.

As Interviewee 1 stated, "Without a unified platform, information silos will persist regardless of leadership effort—technology alone is not the answer; governance is."

3.In the context of vocational education, how should administrators effectively encourage critical thinking and innovative reflection among faculty and staff?

According to the interviewee, management should first reconstruct the performance evaluation system by incorporating qualitative developmental indicators, such as outcomes of teaching research and professional capacity building, into core appraisal criteria. Targeted bonus or weighting mechanisms can be introduced to encourage teachers to engage in innovative exploration.

At the same time, leaders are expected to exercise Transformational leadership by articulating a clear vision that helps faculty understand the symbiotic

relationship between individual professional development and overall organizational performance.

In addition, the establishment of collaborative mechanisms such as “teaching communities” and mentoring arrangements, together with sustained attention to frontline feedback in routine management practices, can contribute to an organizational climate that supports critical thinking and innovation.

4. Based on your experience, could you share a specific strategy or case in which you provided intellectual stimulation to foster team growth?

During the implementation of an integrated ideological and political curriculum reform, the interviewee organized thematic seminars involving core team members, systematically incorporating local ethnic culture and revolutionary heritage from Guizhou into the reform design. This approach enabled the team to develop a deeper understanding of the intrinsic connection between reform objectives and their own professional development, thereby gradually building collective consensus.

Meanwhile, a differentiated capacity-building strategy was adopted, providing tailored training for teachers at different stages of professional development, alongside practical guidance from provincial-level experts. These measures effectively enhanced the team’s execution capacity and confidence in the reform process.

Additionally, the establishment of weekly progress reviews and dynamic feedback mechanisms helped to promptly address critical bottlenecks in implementation, while positive reinforcement for active contributors further strengthened team commitment and sustained collective momentum.

5. What are the main challenges in establishing and maintaining a transparent and credible accountability system in a vocational college?

The interviewee identified a key challenge as the imbalance between authority and responsibility. Given the highly diversified nature of teaching, practical training, and school-enterprise cooperation contexts, job responsibilities are sometimes insufficiently delineated, leading to ambiguous accountability or even “accountability vacuums.”

Moreover, the implementation of accountability often involves a high degree of discretion, with a lack of standardized procedures and quantifiable criteria, making it vulnerable to non-institutional influences.

In addition, weaknesses in supervision and feedback mechanisms, particularly the failure to publicly disclose accountability outcomes and the limited channels for faculty and student participation in oversight, further erode the transparency and credibility of the accountability system.

6.What mechanisms should be in place to ensure that the accountability system is not only established but also widely recognized and trusted by faculty and staff?

The interviewee emphasized the principle of rule pre-specification, arguing that clear and operational evaluation and accountability standards should be formulated and publicly disclosed prior to implementation. These standards should also reflect regional characteristics, for example by incorporating indicators related to service to local industries.

Furthermore, a multi-stakeholder review mechanism should be established, involving administrative staff, faculty representatives, and industry experts. The use of anonymous scoring and cross-review procedures can help reduce subjective bias.

Finally, full-process transparency must be ensured through the disclosure of decision rationales, implementation procedures, and final outcomes, alongside the provision of formal and accessible appeal and feedback channels, thereby strengthening institutional acceptability and trust.

7.In a resource-constrained vocational college, how should administrators cultivate an organizational climate that allows for prudent risk-taking and learning from failure?

The interviewee suggested that managers should engage in strategic anchoring by prioritizing innovative initiatives that closely align with the institution's core mission, such as projects serving the development of Guizhou's distinctive local industries.

In addition, a two-dimensional dynamic evaluation model based on “value” and “feasibility” can be employed to rationally screen innovation projects, ensuring that limited resources are concentrated on initiatives with high potential and realistic prospects.

Through cross-departmental resource sharing and school-enterprise collaboration, existing resources can be more fully mobilized to support key innovation projects, thereby effectively reducing the costs of trial and error.

8. Could you describe a specific situation in which psychological safety (or the lack thereof) significantly impacted the progress or outcome of an innovation initiative?

During the implementation of a project integrating revolutionary culture into ideological and political courses, insufficient psychological safety emerged as a significant constraint on deeper project advancement. Due to the absence of regularized cross-disciplinary communication mechanisms, close collaboration between ideological-political instructors and subject-specialist teachers proved difficult to achieve.

Some teachers lacked a clear understanding of the project’s long-term value and were concerned about potential failure risks or increased workload, resulting in low participation willingness. The relative lack of systematic training and support further weakened the overall effectiveness of project implementation.

9. During digital transformation, how should vocational colleges establish systematic and ongoing evaluation mechanisms to assess digital progress?

The interviewee argued that institutions should construct an evaluation framework encompassing both process and outcome dimensions. At the process level, a digital transformation progress ledger can be established to continuously track key tasks and milestones.

At the outcome level, quantitative indicators, such as the coverage rate of online courses and the duration of administrative approval processes, should be combined with qualitative assessments, including interviews with faculty and

students and expert reviews, to more comprehensively capture the actual effects of digital transformation.

10.How should evaluation results be effectively used to adjust and refine the digital strategy? Please illustrate with an example.

According to the interviewee, evaluation results should be directly incorporated into annual strategic review and adjustment processes. For instance, when evaluations reveal low utilization rates of digital collaboration platforms, corresponding adjustments should be made to training priorities and incentive policies in order to enhance practical application.

At the same time, optimization of digital strategy should take into account both external policy environments and internal development needs. By aligning provincial policy orientations on digital transformation in vocational education with specific institutional weaknesses identified through evaluation, resource allocation and development priorities can be dynamically adjusted, thereby improving the overall relevance and effectiveness of strategic implementation.

Interviewee 2

1.What are the primary structural or cultural factors influencing the transparent flow of information across different levels in your vocational college?

The interviewee argued that the obstruction of transparent information flow is, to some extent, rooted beyond commonly discussed explicit structural or cultural factors. Instead, it is more deeply embedded in an implicit logic of power perception. Specifically, whether information is transmitted often depends on subjective judgments such as “whether it is necessary to inform” or “who needs to know.” This perception of information as an extension of power is tacitly accepted as legitimate within the organization, fundamentally constraining the possibilities for information openness and transparent circulation.

2.What specific mechanisms or practices could be implemented at the organizational level to enhance the transparency and efficiency of information sharing?

The interviewee noted that broadly emphasizing the “full use of information technology tools” does not, in itself, constitute an effective mechanism, as such statements often remain at the level of technical rhetoric. What is more critical is the implementation of differentiated and tiered digital literacy training. This should be accompanied by a cyclical practice model of “application in practice - reflection through application - optimization through reflection, ” through which the relevance and effectiveness of digital tools in real work contexts can be continuously tested and enhanced.

3.In the context of vocational education, how should administrators effectively encourage critical thinking and innovative reflection among faculty and staff?

The interviewee emphasized that managers need to Recognize the limited motivational role of performance indicators, which function more as auxiliary rather than decisive drivers. The fundamental motivation for teachers’ professional development primarily stems from intrinsic factors. Under such conditions, the key for managers lies not in making broad commitments or slogan-based incentives, but in concretely articulating the tangible benefits that innovation and change may bring to individual professional development, thereby stimulating voluntary participation and sustained engagement.

4.Based on your experience, could you share a specific strategy or case in which you provided intellectual stimulation to foster team growth?

In practice, the interviewee consistently adhered to three core strategies. First, avoiding vague promises or unrealistic vision statements. Second, explicitly clarifying the concrete value that participation in change initiatives holds for team members’ skill enhancement and career development opportunities. Third, adopting a role-modeling leadership approach by leading through example, emphasized as

“follow me” rather than command-based directives, thereby strengthening team trust and execution capacity.

5.What are the main challenges in establishing and maintaining a transparent and credible accountability system in a vocational college?

According to the interviewee, the most fundamental challenge does not lie solely in institutional design or external conditions, but rather in the vision and value orientation of top leaders. How leaders understand power, responsibility, and principles of public governance directly shapes whether accountability mechanisms can genuinely regulate behavior, reinforce responsibility awareness, and enhance organizational trust.

6.What mechanisms should be in place to ensure that the accountability system is not only established but also widely recognized and trusted by faculty and staff?

In practice, the interviewee typically follows a sequential approach. First, relevant policies are systematically reviewed to accurately grasp their core intent and implementation priorities. Second, key personnel are convened for collective discussions to gather input on policy communication and execution strategies. More critically, after formal policy deployment, flattened and direct communication channels should be promptly established, with senior leaders personally responding to faculty and staff inquiries. This helps ensure a relatively shared understanding of policy objectives, rules, and responsibility boundaries.

7.In a resource-constrained vocational college, how should administrators cultivate an organizational climate that allows for prudent risk-taking and learning from failure?

The interviewee indicated that managers must consistently align initiatives with the institution’s core development strategy and primary responsibilities, while formulating clear, phased development goals based on informed assessments of industry trends. In terms of resource allocation, a defined strategic focus should serve as the main developmental thread, alongside support for a limited number of exploratory projects with potential for extension. Through multiple targeted trials,

experience integration and capacity accumulation can be achieved, thereby avoiding resource dispersion and disorderly trial-and-error.

8. Could you describe a specific situation in which psychological safety (or the lack thereof) significantly impacted the progress or outcome of an innovation initiative?

Based on the interviewee's observations, key factors constraining the advancement of innovation projects often include unclear goals, insufficient team cohesion, low communication efficiency, and weakened responsibility awareness. When these factors coexist, project implementation tends to remain at the level of "task completion," making it difficult to motivate team members to pursue quality improvement and innovative breakthroughs, which in turn significantly limits innovation outcomes.

9. During digital transformation, how should vocational colleges establish systematic and ongoing evaluation mechanisms to assess digital progress?

The interviewee pointed out that, in practice, institutions have yet to establish a systematic evaluation framework specifically targeting digital transformation. In the teaching domain, evaluations are often conducted sporadically by academic affairs offices or quality assurance units, primarily through classroom observations and form-based reporting. These processes tend to emphasize procedural documentation, while paying insufficient attention to the substantive instructional outcomes of digital transformation.

10. How should evaluation results be effectively used to adjust and refine the digital strategy? Please illustrate with an example.

The interviewee argued that in the absence of a systematic evaluation framework, assessment results themselves struggle to provide meaningful support for digital strategy optimization. Evaluation approaches oriented toward "inspection and documentation" are unlikely to generate insights of strategic value. From a longer-term perspective, effective organizational culture building is not a short-term endeavor, but depends on leaders maintaining clear objectives, orderly governance, and the capacity to guide teams toward tangible achievements. When organizational

members experience the concrete value of collaboration and openness through shared outcomes, these principles can gradually be internalized as stable organizational consensus.

Interviewee 3

1.What are the primary structural or cultural factors influencing the transparent flow of information across different levels in your vocational college?

The interviewee pointed out that, as a vocational institution specializing in culture and tourism, the transparency of internal information flow is influenced to a considerable extent by the external industry environment. Specifically, the development dynamics of the provincial cultural and tourism sector, along with the availability of relevant industry information, directly shape how key external information is acquired, interpreted, and transmitted within the institution. This external dependence on industry information means that certain critical information flows are not entirely determined by internal organizational structures or cultural factors, but are closely tied to industry development rhythms and information accessibility, which objectively affects the efficiency of information circulation across institutional levels.

2.What specific mechanisms or practices could be implemented at the organizational level to enhance the transparency and efficiency of information sharing?

The interviewee emphasized the importance of establishing incentive mechanisms with clear directional signals at the organizational level. By introducing reward-based measures, institutions can effectively enhance teachers' willingness to proactively share information and utilize data. In addition, regular digital skills training closely aligned with teachers' professional interests, such as linking training content to promotion criteria or professional development requirements, was considered essential. Such targeted capacity-building initiatives can systematically strengthen

teachers' digital literacy and data application awareness, thereby improving both the quality and efficiency of information sharing in practice.

3. In the context of vocational education, how should administrators effectively encourage critical thinking and innovative reflection among faculty and staff?

According to the interviewee, managers need to place teachers' professional development at the center of governance practice and demonstrate its importance through sustained and concrete actions. Teachers' work motivation and willingness to innovate largely depend on whether their professional growth is supported by stable and predictable institutional arrangements. When managers provide clear and consistent support for professional development, teachers are more likely to actively engage in instructional and practical innovation, derive a sense of professional achievement, and obtain corresponding career returns, thereby forming a virtuous cycle that fosters innovation.

4. Based on your experience, could you share a specific strategy or case in which you provided intellectual stimulation to foster team growth?

Drawing on personal management experience, the interviewee indicated that promoting team development hinges on implementing fair and defined task allocation, alongside maintaining appropriate and effective process supervision during project implementation. Managers need to possess a thorough understanding of the projects they oversee in order to accurately identify and acknowledge individual teachers' specific contributions. At the same time, instances of disengagement or insufficient responsibility fulfillment should be addressed in a timely manner to maintain a proactive and orderly team environment, thereby creating favorable conditions for sustained team growth.

5. What are the main challenges in establishing and maintaining a transparent and credible accountability system in a vocational college?

The interviewee noted that, in practice, the primary challenge lies in constructing and sustaining an accountability system that can be broadly accepted and recognized by the majority of faculty and staff. Given the diversity of individual

interests and value judgments, accountability mechanisms often face the practical reality of being “unable to satisfy everyone, ” which increases the difficulty of maintaining institutional stability and building organizational credibility.

6.What mechanisms should be in place to ensure that the accountability system is not only established but also widely recognized and trusted by faculty and staff?

The interviewee suggested that, for universal or broadly distributed resources and rewards, Relatively defined and predictable rotation or queuing mechanisms can be adopted to ensure basic procedural fairness and a sense of psychological equity. For resources or evaluations that are limited in number and highly competitive, relatively open and impartial review or voting procedures should be designed, accompanied by sufficient and timely communication and explanation. These measures can enhance faculty and staff understanding of, and acceptance toward, decision outcomes.

7.In a resource-constrained vocational college, how should administrators cultivate an organizational climate that allows for prudent risk-taking and learning from failure?

The interviewee argued that under conditions of resource constraint, the shaping of organizational climate is primarily reflected in concrete managerial practices. Through fair task allocation, effective supervision, in-depth understanding of project content, timely recognition of individual contributions, and a clear managerial stance toward disengaged behavior, managers can create a work environment with well-defined responsibility boundaries and a balance between incentives and constraints. Such an environment supports teachers in undertaking cautious experimentation within controllable limits and gradually accumulating experience through practice.

8.Could you describe a specific situation in which psychological safety (or the lack thereof) significantly impacted the progress or outcome of an innovation initiative?

Based on management experience, the interviewee observed that team members' psychological safety is closely associated with fairness and clarity in management processes. In situations where task allocation is uneven, individual contributions are not recognized, or disengaged behaviors are tacitly tolerated, teams tend to exhibit low levels of psychological safety. This condition significantly undermines members' willingness to innovate and take risks, thereby negatively affecting the advancement and outcomes of innovation projects.

9. During digital transformation, how should vocational colleges establish systematic and ongoing evaluation mechanisms to assess digital progress?

The interviewee noted that current practice primarily focuses on the front-end stages of digital transformation, particularly the design and implementation of incentive mechanisms and capacity-building initiatives. The establishment of a systematic and continuous evaluation framework, however, is regarded as a complex issue that requires coordinated planning and institutional design at the school-wide level, exceeding the scope of what a single management unit can independently accomplish.

10. How should evaluation results be effectively used to adjust and refine the digital strategy? Please illustrate with an example.

The interviewee argued that digital strategy optimization should first and foremost reflect a precise response to teachers' actual needs. For example, when observations or feedback indicate that teachers encounter operational or instructional design difficulties in integrating culture and tourism-related digital resources (such as virtual scenic sites) into classroom teaching, strategic adjustments should prioritize the provision of more targeted technical support and context-specific instructional workshops, rather than focusing solely on surface-level indicators such as platform usage frequency.

Interviewee 4

1.What are the primary structural or cultural factors influencing the transparent flow of information across different levels in your vocational college?

The interviewee identified a salient cultural factor in the form of pronounced age-related differences within the teaching staff. Some senior teachers, particularly those over the age of 50, exhibit relatively lower willingness to learn and use new information technologies, whereas middle-aged and younger teachers tend to be more receptive to, and proficient in, digital tools. This generational disparity in digital literacy objectively undermines the balance and overall efficiency of information flow across different groups within the institution.

2.What specific mechanisms or practices could be implemented at the organizational level to enhance the transparency and efficiency of information sharing?

At the organizational level, the interviewee suggested that regular training and operational guidance should be closely aligned with teachers' actual professional development needs. For example, targeted training content can be designed around data entry and analysis skills required for promotion evaluations or research project applications. In addition, a "task-driven" implementation approach can be adopted, whereby teachers enhance their information technology application skills while completing concrete tasks such as online course development or the generation of teaching data reports, thereby strengthening the linkage between training and practice.

3.In the context of vocational education, how should administrators effectively encourage critical thinking and innovative reflection among faculty and staff?

Based on management experience, the interviewee emphasized that the key lies in institutional design that translates innovation outcomes and outputs of critical thinking into visible and tangible pathways for teachers' professional advancement. For instance, by formulating a systematic Teacher Promotion Points-Based Evaluation

Scheme, achievements in teaching reform and research innovation can be quantified into accumulative promotion points, thereby establishing a direct and explicit connection between innovative behavior and career development.

4. Based on your experience, could you share a specific strategy or case in which you provided intellectual stimulation to foster team growth?

The interviewee described leading the development and implementation of a Promotion Points-Based Evaluation Scheme for Faculty in the School of Marxism. This scheme systematically restructured evaluation criteria for professional title promotion and administrative advancement by refining previously vague notions of “overall performance” into clear, quantifiable, and accumulative indicators, such as awards in teaching competitions or successful research project approvals. The system provided teachers with explicit performance targets and a relatively fair competitive environment, significantly increasing participation in professional development activities and constituting an effective form of intellectual and behavioral stimulation achieved through institutional design.

5. What are the main challenges in establishing and maintaining a transparent and credible accountability system in a vocational college?

The interviewee identified the primary challenge as achieving an appropriate balance between consistency in standards and sensitivity to individual differences during policy implementation. Specifically, while unified accountability standards must be upheld, reasonable consideration should be given to variations in teachers’ baseline capacities, role attributes, and actual personal circumstances, so as to avoid perceptions of unfairness or resistance arising from overly rigid or simplified enforcement.

6. What mechanisms should be in place to ensure that the accountability system is not only established but also widely recognized and trusted by faculty and staff?

The interviewee argued that the foundation of procedural justice lies in establishing scientifically sound personnel evaluation and resource allocation systems. In addition, key implementation stages should, wherever possible, involve

relatively objective and neutral third parties, such as cross-departmental committees or external experts, to participate in or oversee decision-making processes, thereby enhancing institutional credibility. Finally, comprehensive mechanisms for information disclosure, supervision, and appeal verification should be established to ensure that the entire accountability process is visible, traceable, and responsive, thus strengthening faculty trust and acceptance.

7. In a resource-constrained vocational college, how should administrators cultivate an organizational climate that allows for prudent risk-taking and learning from failure?

Under conditions of limited resources, the interviewee emphasized that the foremost prerequisite for fostering an innovative climate is strategic resource allocation. Managers need to prioritize the deployment of limited time and funding in accordance with institutional development strategies, concentrating support on innovation projects that are most closely aligned with strategic priorities and demonstrate the greatest developmental potential, thereby providing institutional safeguards for “cautious risk-taking.”

8. Could you describe a specific situation in which psychological safety (or the lack thereof) significantly impacted the progress or outcome of an innovation initiative?

The design of the promotion points-based scheme itself was intended to construct psychological safety grounded in clear and transparent rules. Prior to its implementation, promotion standards were relatively ambiguous and subject to substantial human discretion, leading some teachers to adopt cautious or avoidance-oriented attitudes toward high-risk but potentially high-return innovative work. By explicitly converting innovation outcomes into defined points-based indicators, the scheme reduced outcome uncertainty, enhanced teachers’ psychological safety in undertaking cautious innovation, and significantly increased participation in project applications.

9. During digital transformation, how should vocational colleges establish systematic and ongoing evaluation mechanisms to assess digital progress?

Drawing on institutional practice, the interviewee noted that one major obstacle to systematic evaluation lies in the wide variation in teachers' levels of digital literacy. Consequently, evaluation mechanisms should move beyond assessing whether digital tools are merely "used" and instead focus on the quality of their integration into teaching and learning processes. However, this shift simultaneously places higher demands on the digital pedagogical literacy of those responsible for conducting the evaluations.

10. How should evaluation results be effectively used to adjust and refine the digital strategy? Please illustrate with an example.

The interviewee emphasized that evaluation results should directly identify teachers' practical "pain points" and "bottlenecks." For example, when evaluations reveal insufficient interaction in digital collaboration, strategic adjustments should focus on strengthening institutional support rather than simply criticizing low levels of usage. Concretely, this may involve organizing cross-disciplinary online collaborative lesson planning or formally recognizing digital collaboration outcomes within the Promotion Points-Based Evaluation Scheme, thereby transforming evaluation findings into concrete drivers of organizational cultural change.

Interviewee 5

1. What are the primary structural or cultural factors influencing the transparent flow of information across different levels in your vocational college?

The interviewee indicated that structural factors are primarily reflected in the presence of multiple organizational layers and pronounced divisions between departments, which result in elongated information transmission chains with numerous intermediate steps. As a consequence, information is prone to loss and delay during circulation. At the cultural level, a prevailing organizational climate characterized by fear of making mistakes and reluctance to speak openly further constrains members' willingness to provide candid feedback and proactively share information, thereby weakening the foundation for transparent information flow.

2.What specific mechanisms or practices could be implemented at the organizational level to enhance the transparency and efficiency of information sharing?

The interviewee suggested that integrated data platforms could be established at the faculty or departmental level to connect key operational systems such as academic affairs and research management. This would enable teachers to conveniently access core information, including student performance data and research project progress, thereby reducing the time and communication costs associated with repeated information requests. In addition, a “data-driven meeting” mechanism could be introduced, for example, by explicitly requiring work reporting and problem analysis to be grounded in concrete data during monthly meetings, in order to gradually cultivate organizational habits of data-based discussion and decision-making.

3.In the context of vocational education, how should administrators effectively encourage critical thinking and innovative reflection among faculty and staff?

The interviewee proposed that explicit space should be reserved within performance evaluation systems for developmental and innovative behaviors. For instance, participation in professional training, teaching innovation practices, and interdisciplinary collaboration could be incorporated into performance assessments with a weighting of no less than 20%. At the same time, "growth-oriented indicators" could be introduced, such as requiring teachers to experiment with and reflect on at least one new teaching method each semester, as an alternative to evaluation models solely oriented toward the quantity of research outputs. Moreover, including collaborative contributions, such as mentoring junior faculty and participating in team-based course development, in performance assessments can help encourage teamwork and the generation of collective intelligence, thereby mitigating excessive competition.

4.Based on your experience, could you share a specific strategy or case in which you provided intellectual stimulation to foster team growth?

The interviewee described adopting Party-building leadership as a core strategy to systematically advance reforms in ideological and political courses across both teaching and research domains. Within key departmental initiatives, specific activity frameworks such as “Party-building plus teaching innovation, ” “Party-building plus research breakthroughs, ” and “Party-building plus academic culture development” were designed and implemented. By deeply integrating the organizational strengths of the Party with teaching reform, research problem-solving, and educational practice, this approach effectively transformed Party-building work into an internal driving force for departmental development, significantly strengthening the team’s sense of mission, value identification, and capacity for coordinated collective action.

5.What are the main challenges in establishing and maintaining a transparent and credible accountability system in a vocational college?

According to the interviewee, the most significant challenge lies in achieving an appropriate balance between institutional rigidity and human factors. Excessive quantification of teaching activities may lead to behavioral distortion, while one-dimensional, administratively driven accountability mechanisms risk eroding organizational trust. Furthermore, accountability systems that emphasize sanctioning outcomes without providing corresponding support measures often provoke defensive reactions and resistance among faculty. The key issue is ensuring that accountability is oriented toward continuous improvement and shared development rather than toward punishment alone.

6.What mechanisms should be in place to ensure that the accountability system is not only established but also widely recognized and trusted by faculty and staff?

The interviewee emphasized that in high-stakes decision-making contexts, the fundamental principle of “rule transparency” should be upheld. This includes advance disclosure of evaluation standards, transparent operation of decision-making processes, guaranteed opportunities for expression of diverse views, and equal treatment during implementation. At the same time, effective and well-protected

appeal and feedback channels must be established so that faculty members can relatively observe how rules are applied fairly in practice, thereby enhancing trust in and acceptance of institutional outcomes.

7. In a resource-constrained vocational college, how should administrators cultivate an organizational climate that allows for prudent risk-taking and learning from failure?

At the strategic level, the interviewee suggested that resource prioritization should follow three basic principles. First, assess whether a project constitutes an indispensable strategic core in the institution's development trajectory. Second, evaluate whether its feasibility can be tested at relatively low cost. Third, adopt a staged resource investment approach, whereby additional resources are allocated incrementally after phased validation of outcomes, thus supporting innovation while effectively controlling risk.

8. Could you describe a specific situation in which psychological safety (or the lack thereof) significantly impacted the progress or outcome of an innovation initiative?

The interviewee noted that, in the process of advancing innovation projects, the adopted approach itself was explicitly oriented toward constructing psychological safety. This included focusing on strategically essential projects, requiring projects to develop operational prototypes to validate concepts, and maintaining full transparency regarding project rules, implementation progress, and decision rationales. By enhancing process transparency and members' sense of participation, these practices fostered perceptions of fairness and respect, thereby increasing team members' willingness to undertake cautious innovation risks and sustain engagement.

9. During digital transformation, how should vocational colleges establish systematic and ongoing evaluation mechanisms to assess digital progress?

The interviewee argued that effective digital evaluation should be built upon a multidimensional, closed-loop framework that simultaneously incorporates process indicators, such as platform usage rates and training coverage, and outcome indicators, such as improvements in teaching efficiency and reductions in

management costs. Such a framework can provide a comprehensive reflection of both the implementation progress and the substantive outcomes of digital transformation.

10. How should evaluation results be effectively used to adjust and refine the digital strategy? Please illustrate with an example.

According to the interviewee, evaluation results often reveal deeper behavioral inertia and cognitive barriers, such as interdepartmental information silos, fear of new tools, or perceptions of learning as an additional burden. In response, phased intervention strategies can be adopted. At the initial stage, leaders can model the use of digital tools; at the intermediate stage, pilot teams can be selected to implement collaborative projects with corresponding incentives; and at the later stage, digital collaboration and learning outcomes can be formally incorporated into performance evaluation systems. Throughout this process, evaluation results serve to diagnose the organization's developmental stage and provide evidence for the dynamic adjustment of intervention strategies.

Interviewee 6

1. What are the primary structural or cultural factors influencing the transparent flow of information across different levels in your vocational college?

The interviewee noted that, at the structural level, the long-standing reliance on a traditional vertical management model constitutes a major institutional constraint on transparent information flow. In addition, the lack of effective integration among internal business systems has resulted in fragmented data silos, further exacerbating barriers to information circulation. At the cultural level, a prevalent organizational mindset of emphasizing positive reporting while downplaying problems, combined with a strong sense of hierarchy, creates psychological concerns among frontline staff when providing upward feedback, thereby inhibiting the full bottom-up flow of information.

2.What specific mechanisms or practices could be implemented at the organizational level to enhance the transparency and efficiency of information sharing?

The interviewee suggested that, at the operational level, part-time information coordinator roles could be established within departments to serve as key nodes for information aggregation, integration, and transmission. At the same time, it is necessary to formulate clear guidelines for information classification and sharing, specifying the scope, methods, and responsible parties for different types of information. From a technological perspective, making full use of collaborative office platforms can facilitate timely and transparent informal communication. In addition, managers' regular engagement in "management by walking around," through direct presence in frontline work settings to obtain authentic feedback, can partially compensate for the limitations of formal information channels.

3.In the context of vocational education, how should administrators effectively encourage critical thinking and innovative reflection among faculty and staff?

The interviewee argued that managers should guide teachers to conduct systematic "effectiveness reviews" of existing teaching practices, encouraging reflection on whether current approaches genuinely respond to learning objectives and industry demands. Introducing external perspectives, such as industry experts, on a regular basis can provide constructive challenges to established models and help disrupt path dependency. Furthermore, designing task scenarios with an appropriate level of challenge can prompt teams to explore multiple solution pathways. Most importantly, managers need to demonstrate respect for divergent viewpoints in practice and actively cultivate an academic atmosphere characterized by open discussion and rational debate.

4.Based on your experience, could you share a specific strategy or case in which you provided intellectual stimulation to foster team growth?

Drawing on a teaching reform initiative, the interviewee described organizing and facilitating a "conceptual reconstruction workshop." The workshop aimed to

guide the team beyond superficial understandings of key pedagogical concepts. By posing a series of fundamental questions, the interviewee encouraged team members to engage in in-depth discussion around teaching objectives, technology application, cost constraints, and professional ethics. Ultimately, the team collaboratively designed a comprehensive teaching project that balanced technological feasibility, economic efficiency, and educational integrity. This process significantly enhanced the team's capacity for advanced instructional design and complex problem analysis.

5.What are the main challenges in establishing and maintaining a transparent and credible accountability system in a vocational college?

According to the interviewee, a primary challenge lies in the inherent difficulty of precisely quantifying outcomes associated with core educational functions such as teaching and student development, which complicates the formulation of accountability standards. In addition, within a relational social context, interpersonal pressures may cause accountability practices to become symbolic rather than substantive. Furthermore, accountability systems that overemphasize punishment while lacking supportive and developmental orientations are likely to generate fear and resistance among faculty. A lack of transparency in accountability processes or outcomes further undermines institutional credibility.

6.What mechanisms should be in place to ensure that the accountability system is not only established but also widely recognized and trusted by faculty and staff?

The interviewee emphasized that key accountability standards should be jointly formulated through democratic procedures such as faculty representative assemblies, thereby enhancing institutional legitimacy and a sense of participation. During implementation, evaluation processes and primary evidentiary bases should be fully disclosed, and development-oriented feedback should be provided to those being evaluated. It is also necessary to Relatively distinguish, at the institutional level, between “developmental accountability” and “reward-and-punishment accountability” to avoid goal confusion. Moreover, managers' own decisions and

behaviors should be subject to oversight, reflecting the principles of rule consistency and equal responsibility under the system.

7. In a resource-constrained vocational college, how should administrators cultivate an organizational climate that allows for prudent risk-taking and learning from failure?

The interviewee suggested that managers must first Relatively define what constitutes "intelligent failure" and explicitly endorse it within both institutional arrangements and organizational discourse. Establishing a "micro-innovation fund" can effectively lower entry barriers for experimental projects. In addition, managers' public reflection on and sharing of their own failures serves as an important demonstration for fostering psychological safety. Institutionalizing non-punitive "project review" mechanisms further enables failure experiences to be transformed into accumulative organizational learning resources.

8. Could you describe a specific situation in which psychological safety (or the lack thereof) significantly impacted the progress or outcome of an innovation initiative?

Using the reform of a "cross-disciplinary modular curriculum" as an example, the interviewee noted that during the reform process, some teachers chose to conceal their genuine concerns due to fears of being labeled as incompetent or overly conservative. The absence of psychological safety prevented early discussions from fully surfacing potential difficulties, which later manifested as passive compliance behaviors and ultimately weakened the practical effectiveness of curriculum integration. This case Relatively illustrates how insufficient psychological safety can fundamentally undermine the success of innovation initiatives.

9. During digital transformation, how should vocational colleges establish systematic and ongoing evaluation mechanisms to assess digital progress?

The interviewee argued that institutions should construct a comprehensive evaluation system encompassing multiple dimensions, including infrastructure development, application levels, and teaching outcomes. Methodologically, combining quantitative data analysis with qualitative research approaches can yield

more holistic and nuanced judgments. Furthermore, digital progress evaluation should be institutionalized and embedded into routine semester- and annual-level workflows to ensure continuity and traceability.

10.How should evaluation results be effectively used to adjust and refine the digital strategy? Please illustrate with an example.

The interviewee explained that when evaluation results revealed a tendency toward prioritizing infrastructure construction over practical application, the institution promptly redirected incentives toward application effectiveness. Based on weaknesses identified through evaluation, development priorities were precisely adjusted to focus on micro-courses for practical training and virtual simulation projects. At the same time, activity-driven strategies, such as organizing case competitions, were adopted to encourage teachers to actively activate existing digital resources. In addition, optimizing platform search functions in response to student feedback demonstrated the direct guiding role of evaluation results in promoting the continuous improvement of digital strategy.

Interviewee 7

1.What are the primary structural or cultural factors influencing the transparent flow of information across different levels in your vocational college?

The interviewee emphasized that information flow within the organization is not, and should not be, unlimited, but rather operates within objectively reasonable boundaries. Different organizational levels and units possess and transmit information of varying types, depths, and scopes, and such differentiation is institutionally legitimate. From this perspective, information transparency does not equate to complete openness; instead, it refers to the orderly circulation of information within defined boundaries.

2.What specific mechanisms or practices could be implemented at the organizational level to enhance the transparency and efficiency of information sharing?

At the organizational practice level, the interviewee suggested establishing differentiated information access rights and sharing scopes based on the actual work needs of different levels and groups, thereby balancing efficiency and security. With the support of modern collaborative tools, such as the Feishu platform used at the interviewee's institution, clear time limits can be set for information sharing, and automated reminder functions can be leveraged to enhance process execution efficiency. In addition, when introducing new tools or mechanisms, a "pilot-first" approach, in which advanced teams trial innovations ahead of broader adoption, can generate demonstrative effects that facilitate organization-wide diffusion.

3. In the context of vocational education, how should administrators effectively encourage critical thinking and innovative reflection among faculty and staff?

The interviewee argued that managers should establish clear and operationalizable indicators for teacher professional development and systematically embed them within the performance evaluation framework. These indicators should be reviewed on a regular, semester-based cycle, with evaluation outcomes directly linked to key professional milestones such as title appraisal, rank promotion, and salary adjustment. Through such institutionalized incentive and accountability mechanisms, teachers can be guided to engage continuously in reflective practice and innovative work.

4. Based on your experience, could you share a specific strategy or case in which you provided intellectual stimulation to foster team growth?

Using the establishment of a "special allowance for university ideological and political theory course teachers" as an example, the interviewee noted that the critical factor was not the financial incentive itself, but the accompanying design of a specific, explicit, and operable evaluation indicator system. This indicator framework was sequentially reviewed and approved by the joint Party-administration meeting and the faculty representative assembly, then formally filed with the university and human resources authorities, ultimately serving as a transparent and official basis for annual assessment. By aligning economic incentives with Relatively articulated

performance expectations, this approach effectively guided and stimulated teachers' professional behaviors and levels of engagement.

5.What are the main challenges in establishing and maintaining a transparent and credible accountability system in a vocational college?

According to the interviewee, the greatest challenge facing accountability systems lies not in institutional design itself, but in whether established rules can be implemented without compromise. The core requirement is that enforcement must adhere strictly to uniform standards, without adjustment based on individual identity, seniority, or role differences. Any deviation from equal application would directly undermine the authority and credibility of the accountability system.

6.What mechanisms should be in place to ensure that the accountability system is not only established but also widely recognized and trusted by faculty and staff?

When addressing high-stakes decisions, the interviewee emphasized the necessity of strictly adhering to democratic and transparent procedures. Specifically, extensive grassroots consultation should first be conducted to fully solicit views from different groups, on the basis of which a policy draft is developed. The draft should then be reviewed by the joint Party-administration meeting and the faculty assembly, followed by formal approval and public disclosure at the institutional level. During implementation, diverse opinions may continue to exist; however, once a decision has received broad majority support, resolute execution is essential to safeguard institutional stability and authority.

7.In a resource-constrained vocational college, how should administrators cultivate an organizational climate that allows for prudent risk-taking and learning from failure?

In terms of resource allocation, the interviewee suggested prioritizing initiatives that demonstrate high contribution potential, strong urgency, and clear strategic significance. At the same time, in determining priorities and action plans, managers need to actively foster broad consensus between leadership and staff, as

well as within teams. Such consensus, in the interviewee's view, constitutes a critical precondition for smooth implementation and sustained member support.

8. Could you describe a specific situation in which psychological safety (or the lack thereof) significantly impacted the progress or outcome of an innovation initiative?

The interviewee noted that, prior to the formal launch of an innovation project, sufficient analysis, deliberation, and evaluation are essential, alongside efforts to build consensus among team members. Moreover, project objectives must establish a substantive connection with participants' personal interests and professional development. In the absence of consensus, or when project outcomes are decoupled from individual benefits, members' intrinsic motivation and engagement are significantly weakened, thereby undermining project progress. This phenomenon highlights the critical role of psychological safety and interest alignment in innovation practice.

9. During digital transformation, how should vocational colleges establish systematic and ongoing evaluation mechanisms to assess digital progress?

The interviewee argued that the evaluation and optimization of digital transformation should be examined from the perspective of overall organizational capacity building. The central focus lies in systematically strengthening the digital literacy and comprehensive capabilities of the "three teams": teaching and learning staff, student support and service staff, and management personnel. The strategic orientation of evaluation should ultimately serve the long-term goal of cultivating "digitally intelligent skilled professionals" and "great craftsmen" aligned with national educational development objectives.

10. How should evaluation results be effectively used to adjust and refine the digital strategy? Please illustrate with an example.

In the process of fostering an organizational culture that values digital collaboration and continuous learning, the interviewee identified the primary challenge as gradually forming and consolidating shared cultural understandings and value recognition within the organization. This process requires sustained advocacy,

communication, and intergenerational transmission. As organizational culture is fundamentally a set of beliefs and behavioral patterns accumulated over time and widely internalized by members, digital strategy optimization should focus on how capability gaps identified through evaluation can be progressively transformed, via institutional design, training mechanisms, and leadership modeling, into shared and enduring cultural practices.

Interviewee 8

1.What are the primary structural or cultural factors influencing the transparent flow of information across different levels in your vocational college?

From a structural perspective, the interviewee noted that a reasonably designed organizational structure, together with a relatively well-developed college-level digital office platform, provides fundamental support for smooth information flow across different hierarchical levels. These institutional and technological arrangements help reduce procedural friction in information transmission and constitute an essential precondition for achieving information transparency within the institution.

2.What specific mechanisms or practices could be implemented at the organizational level to enhance the transparency and efficiency of information sharing?

In organizational practice, the interviewee emphasized the importance of systematic, centralized training for faculty members to enhance their overall understanding of information technology and basic application competencies. Building on this foundation, targeted capacity development should be provided for key faculty members responsible for major program development tasks. Furthermore, the enhancement of digital literacy should be strategically aligned with the development goals of the institution's priority programs, thereby ensuring coordinated advancement between capacity building and strategic objectives.

3. In the context of vocational education, how should administrators effectively encourage critical thinking and innovative reflection among faculty and staff?

The interviewee suggested that managers can guide and reinforce innovation-oriented organizational behavior by optimizing performance distribution mechanisms. Specifically, the proportional allocation and distribution rules between position-based performance pay and incentive-based performance rewards should relatively reflect the principle of rewarding diligence and addressing underperformance. At the same time, performance criteria should not be treated as fixed; rather, they require periodic review and dynamic adjustment in response to the institution's developmental stage and strategic priorities, in order to maintain their practical relevance and motivational effectiveness.

4. Based on your experience, could you share a specific strategy or case in which you provided intellectual stimulation to foster team growth?

In leading a major reform initiative focused on the establishment of a new academic program, the interviewee designed the entire process as a systematic project characterized by broad participation and shared responsibility. From early-stage industry and market research and expert consultation, to the formulation of the talent training scheme and teaching implementation, and further to the planning, construction, and efficient utilization of specialized training facilities, all key stages were advanced through collective deliberation, joint decision-making, and coordinated action. This process not only significantly strengthened team consensus, but also fostered the development of the team's overall capacity through practice.

5. What are the main challenges in establishing and maintaining a transparent and credible accountability system in a vocational college?

At a fundamental level, the interviewee identified one of the most critical challenges as whether the teaching staff continues to maintain a sense of professional reverence and ethical commitment toward the teaching profession itself. This internalized professional ethic and value identification constitutes the deep

cultural foundation upon which an accountability system can be voluntarily accepted and effectively sustained.

6.What mechanisms should be in place to ensure that the accountability system is not only established but also widely recognized and trusted by faculty and staff?

When addressing high-stakes decisions, the interviewee emphasized strict adherence to democratic and transparent procedures. Concretely, preliminary proposals should be openly circulated among all faculty members to solicit feedback prior to decision-making, and reasonable suggestions should be incorporated through revision. The finalized proposal must then be reviewed collectively in accordance with established institutional deliberation procedures, and only after formal approval should it be officially issued and implemented, thereby safeguarding procedural justice and institutional legitimacy.

7.In a resource-constrained vocational college, how should administrators cultivate an organizational climate that allows for prudent risk-taking and learning from failure?

In setting strategic priorities, the interviewee argued that leaders should closely align decision-making with market demand and prioritize resource allocation toward key development programs. In terms of human resource deployment, a dual-track approach combining external recruitment and internal transformation can be adopted: on the one hand, urgently needed specialists can be selectively recruited; on the other hand, existing faculty members can be actively encouraged and supported to transition toward priority program areas. This approach helps activate internal resources while providing sustained support for innovation-oriented practices.

8.Could you describe a specific situation in which psychological safety (or the lack thereof) significantly impacted the progress or outcome of an innovation initiative?

Drawing on project implementation experience, the interviewee observed that obstacles to innovation project advancement are typically systemic in nature

rather than attributable to a single factor. Such factors may include the adequacy of preliminary research and feasibility analysis, the appropriateness of the team's age and knowledge structure, the rationality of overall time planning, and whether internal incentive mechanisms can continuously sustain members' engagement and collaborative motivation. Together, these conditions shape team members' psychological safety and directly influence their level of practical commitment to the project.

9. During digital transformation, how should vocational colleges establish systematic and ongoing evaluation mechanisms to assess digital progress?

The interviewee argued that the effectiveness of digital transformation and its evaluation ultimately depend on the cultivation of organizational culture. A critical starting point lies in individual cognition, that is, whether teachers relatively understand their own roles and responsibilities within the institution's overall digitalization process. Accordingly, evaluation mechanisms should not focus solely on indicators of technical usage, but should also seek to continuously shape shared understanding and organizational belonging through regular team-building activities, smooth vertical communication channels, and effective incentive arrangements.

10. How should evaluation results be effectively used to adjust and refine the digital strategy? Please illustrate with an example.

Consistent with this logic, evaluation outcomes should serve to deepen individual cognition and strengthen team connectivity. For example, when evaluation reveals significant barriers in cross-departmental digital collaboration, strategic optimization should not be confined to additional technical training alone. A more effective approach is to integrate problem-solving with institutional incentive mechanisms and team development efforts, by designing digital teaching projects that necessarily rely on cross-departmental collaboration and by providing explicit recognition and rewards for teams that achieve tangible results. Through such practices, teachers are guided to appreciate the value of collaboration, enhance their sense of organizational belonging, and ultimately support the holistic optimization of the digital collaboration strategy.

Interviewee 9

1.What are the primary structural or cultural factors influencing the transparent flow of information across different levels in your vocational college?

The interviewee identified an entrenched cultural emphasis on information confidentiality as the primary factor constraining transparent information flow across organizational levels. This orientation has fostered a cautious and hierarchical approach to information dissemination, whereby official notices and documents are often circulated only within designated functional units. As a result, teaching staff frequently experience delays or barriers in accessing complete information, limiting opportunities for comprehensive understanding and informed engagement. At a broader level, this practice narrows both the scope of information circulation and the depth of collective organizational cognition.

2.What specific mechanisms or practices could be implemented at the organizational level to enhance the transparency and efficiency of information sharing?

The interviewee argued that improving transparency and efficiency in information sharing requires a coordinated and systemic approach across three dimensions.

First, an integrated digital platform oriented toward teachers and students should be established to dismantle departmental silos and consolidate core data related to teaching, administration, and research. Access permissions should be configured through graded and secure authorization mechanisms based on user roles and functional needs. For example, a tiered document-sharing system could allow authorized users to view and analyze non-confidential materials online, rather than relying on limited on-site consultation. Platform design should prioritize usability and operational efficiency.

Second, institutionalized data-informed decision-making mechanisms should be developed. Fixed agenda items can be embedded in key meetings, such as teaching coordination or resource allocation sessions, requiring decisions to be

supported by relevant data. In parallel, regular data analysis workshops for administrators and teachers can gradually strengthen their capacity to identify problems and substantiate judgments using empirical evidence, facilitating a shift from experience-based management toward evidence-informed governance.

Third, a tiered and pragmatic digital literacy empowerment program should be implemented. Leadership teams can focus on data strategy interpretation, administrative staff on data process management, and teachers on instructional data application. In addition, an incentive initiative recognizing “data collaboration pioneers” can be introduced to reward individuals or teams that actively share high-quality data resources and apply data to improve teaching or management practices, thereby cultivating a culture of openness and collaboration.

3. In the context of vocational education, how should administrators effectively encourage critical thinking and innovative reflection among faculty and staff?

The interviewee emphasized that defined and perceptible reward mechanisms are central to stimulating critical thinking and innovation. Through institutional design, teachers can be guided to continuously enhance their professional competencies, while those achieving notable outcomes in areas such as teaching competitions or research projects receive substantive recognition and incentives. This approach aims to foster a quality- and outcome-oriented environment of constructive competition, aligning external rewards with teachers’ intrinsic motivation for professional growth and encouraging sustained pursuit of excellence.

4. Based on your experience, could you share a specific strategy or case in which you provided intellectual stimulation to foster team growth?

In management practice, the interviewee consistently adhered to principles emphasizing proportionality between contribution and reward, as well as recognition of competence. Through formal institutional arrangements, the linkage between additional effort and corresponding returns was made explicit. For teachers demonstrating both capability and willingness to assume greater responsibility for

institutional development, the interviewee actively sought resources and created opportunities to ensure their contributions were visibly acknowledged. Simultaneously, by advocating on behalf of teachers at higher administrative levels to secure greater development space and policy support, the interviewee provided a leadership example that stimulated intrinsic motivation and collective ambition within the team.

5.What are the main challenges in establishing and maintaining a transparent and credible accountability system in a vocational college?

The interviewee highlighted a deeply rooted paradox within accountability practices: the perception that “the more one does, the higher the likelihood of making mistakes.” When accountability systems fail to distinguish between exploratory trial-and-error inherent in innovation, reasonable deviations during reform processes, and errors caused by negligence or dereliction of duty, and instead apply uniform accountability standards to all mistakes, they risk severely undermining the motivation of proactive and innovative staff. Such practices may foster a defensive and risk-averse organizational culture, contradicting the intended purpose of accountability systems to enhance performance and support continuous improvement.

6.What mechanisms should be in place to ensure that the accountability system is not only established but also widely recognized and trusted by faculty and staff?

In high-stakes decisions, the interviewee emphasized adherence to a comprehensive and rigorous procedural framework to ensure fairness and legitimacy. This framework included extensive pre-decision communication with teachers to understand key concerns, advance research and democratic deliberation through thematic meetings, the use of voting mechanisms in candidate or proposal selection, submission of preliminary outcomes to formal meetings for collective decision-making, and final public disclosure of results. Through this closed-loop process of communication, deliberation, voting, decision-making, and disclosure, procedural

transparency, broad participation, and result traceability were maximized, thereby strengthening institutional trust and acceptance.

7. In a resource-constrained vocational college, how should administrators cultivate an organizational climate that allows for prudent risk-taking and learning from failure?

The interviewee emphasized that innovation initiatives must be closely aligned with the institution's strategic core objectives, such as improving graduate employment quality, developing distinctive programs, or serving key regional industries. Resource allocation priorities should be determined accordingly. On this basis, a transparent project evaluation mechanism should be established, assessing initiatives across dimensions such as strategic alignment, expected impact, and resource requirements. Limited resources can then be concentrated on projects with high strategic relevance and feasibility. Through internal resource integration, expanded school-enterprise collaboration, and access to project-based funding, combined with cross-departmental cooperation, an iterative model of "seed funding initiation, internal expert support, and phased evaluation" can be adopted to balance risk control with resource optimization.

8. Could you describe a specific situation in which psychological safety (or the lack thereof) significantly impacted the progress or outcome of an innovation initiative?

Using the example of a cross-disciplinary virtual simulation training platform initiative, the interviewee noted that the primary obstacles encountered were not technical or financial, but rather the absence of effective cross-departmental coordination mechanisms and benefit-sharing arrangements. Because departmental performance evaluation systems operated independently and concerns over resource ownership persisted, willingness to share resources was limited. At the same time, unclear divisions of responsibility among units such as the academic affairs office and the training center further reduced coordination efficiency. Although the platform was completed at an initial level, the lack of stable institutional and cultural support for collaboration meant that subsequent content updates, routine

management, and practical utilization fell short of expectations, underscoring the importance of psychological safety and organizational context in sustaining innovation outcomes.

9. During digital transformation, how should vocational colleges establish systematic and ongoing evaluation mechanisms to assess digital progress?

The interviewee described a three-tier evaluation framework. The first tier focuses on foundational effectiveness, monitoring quantitative indicators such as smart classroom coverage, usage rates of core business systems, and digital literacy levels among faculty and students to assess the breadth and depth of digital transformation. The second tier examines integration effects, evaluating changes brought about by digital interventions in teaching, management, and service contexts, including links between digital resource use and student skill development, efficiency gains from online administrative processes, and cases of data-supported cross-departmental decision-making. The third tier addresses strategic impact, assessing the medium- to long-term contribution of digital transformation to institutional competitiveness, supplemented by qualitative evidence such as satisfaction surveys and feedback from industry partners.

10. How should evaluation results be effectively used to adjust and refine the digital strategy? Please illustrate with an example.

The interviewee noted that evaluation findings often reveal underlying barriers related to mindset, institutional arrangements, capability gaps, and security perceptions. These include tendencies to treat information as a personal asset rather than a shared resource, insufficient incentives for collaboration within traditional evaluation systems, pronounced disparities in teachers' digital literacy, and excessive concern over data security and privacy risks. To address these challenges, a phased advancement strategy can be adopted. In the initial phase, awareness is enhanced through case-based learning and thematic discussions. In the second phase, pilot initiatives are implemented by mature teams alongside the establishment of norms for resource use and intellectual property protection. In the final phase, successful practices are systematically summarized and scaled up, with collaborative and

sharing behaviors formally incorporated into performance evaluation systems. Through this process, openness and collaboration can gradually be internalized as stable organizational norms.

Interviewee 10

1.What are the primary structural or cultural factors influencing the transparent flow of information across different levels in your vocational college?

The interviewee argued that the primary constraints on transparent information flow operate at both structural and cultural levels. Structurally, a hierarchical management system predominates, with relatively clear divisions of authority and responsibility across departments. However, mechanisms for horizontal coordination and upward feedback remain weak, resulting in an information transmission pattern that relies largely on one-way, top-down vertical channels. Culturally, hierarchical communication inertia is evident. Information filtering occurs at certain managerial stages, while grassroots faculty and students demonstrate limited willingness to provide proactive feedback. In addition, the absence of institutionalized platforms for regular information disclosure and interaction increases the likelihood of information attenuation and delay during transmission, thereby undermining effective alignment between organizational needs and decision-making processes.

2.What specific mechanisms or practices could be implemented at the organizational level to enhance the transparency and efficiency of information sharing?

At the organizational level, the interviewee suggested that information-sharing mechanisms can be systematically strengthened along three dimensions. First, a unified data-sharing platform should be established to dismantle interdepartmental data silos, supported by standardized data governance norms and Relatively defined responsibilities for data ownership, management, and access authorization. This would enable faculty and students to obtain necessary information conveniently

within a compliant framework. Second, a routine data-driven decision-making mechanism should be institutionalized by embedding data analysis and reflective review into meetings and daily workflows, alongside targeted training on the interpretation of digital data in relation to core operational functions. Third, differentiated digital literacy development initiatives should be implemented for managers, faculty, and students, complemented by practice-oriented approaches such as peer support groups and application-based competitions to enhance overall capacity for digital application and analysis.

3. In the context of vocational education, how should administrators effectively encourage critical thinking and innovative reflection among faculty and staff?

The interviewee emphasized that the key lies in systematically embedding teachers' professional development and employee well-being into performance design, daily management, and resource allocation. Performance indicator systems should be restructured to incorporate dimensions of professional growth and occupational well-being, appropriately aligned with teaching and management objectives. In parallel, mechanisms linking performance feedback to individual development should be established, translating evaluation outcomes into personalized professional guidance and support plans. Well-being considerations should be operationalized through routine management actions, such as reasonable workload control, flexible institutional arrangements, accessible psychological support channels, and guaranteed time and resources for professional development activities. Importantly, managers should lead by example by adopting a human-centered leadership approach, listening to frontline concerns and responding to practical difficulties so that performance targets function as supportive instruments for professional growth rather than as sources of pressure.

4. Based on your experience, could you share a specific strategy or case in which you provided intellectual stimulation to foster team growth?

In advancing the system-wide reform of teaching digitalization, the interviewee adopted a phased strategy centered on consensus building, participatory

empowerment, and value realization. Initially, multiple rounds of stratified dialogue were conducted to directly address teachers' concerns regarding technology adoption and to clarify the empowering implications of digital transformation for individual professional development, positioning the reform as professional support rather than an additional burden. Subsequently, a "core members first, full participation" mechanism was established by selecting key teachers to form pilot teams that participated deeply in solution design and tool selection, thereby strengthening ownership and autonomy. Finally, overarching objectives were decomposed into executable phased tasks, supported by targeted training and one-on-one assistance to resolve implementation challenges in a timely manner, enabling the team to achieve continuous feedback on incremental outcomes and reinforcing confidence and organizational commitment.

5.What are the main challenges in establishing and maintaining a transparent and credible accountability system in a vocational college?

The interviewee identified three principal challenges in the construction of accountability systems. First, accountability standards are difficult to unify, as positions differ substantially in work characteristics and outcome forms, making it challenging to balance quantitative indicators with qualitative evaluation and increasing the risk of ambiguous standards and implementation bias. Second, boundaries of authority and responsibility are not always Relatively defined, particularly in areas involving cross-functional management, which can lead to responsibility shifting and difficulties in precisely identifying accountable parties. Third, accountability practices often exhibit a results-oriented bias that prioritizes outcome indicators, such as enrollment progression or competition achievements, while undervaluing the substantial process-oriented efforts invested by teachers in pedagogical experimentation and individualized student development.

6.What mechanisms should be in place to ensure that the accountability system is not only established but also widely recognized and trusted by faculty and staff?

The interviewee stressed that accountability systems should be anchored in procedural justice and perceived fairness of outcomes, reinforced through standardized procedures, full-process transparency, and multi-stakeholder oversight. This includes formulating clear and operational decision-making guidelines that specify indicator systems and weighting schemes for resource allocation and personnel evaluation, subject to review by faculty representatives and public disclosure. Transparency should be ensured throughout the entire decision-making process, from application and preliminary review to final verification and result publication, with complete records retained. In addition, diversified evaluation panels comprising administrators, frontline faculty, and industry experts should be formed, with fairness enhanced through mechanisms such as anonymous review and collective voting. Finally, formal channels for objections and appeals should be established, enabling accountability procedures to operate as a traceable and correctable closed-loop system.

7. In a resource-constrained vocational college, how should administrators cultivate an organizational climate that allows for prudent risk-taking and learning from failure?

Under conditions of constrained resources, the interviewee argued that leaders should establish innovation priorities based on principles of strategic anchoring, precise selection, and dynamic allocation. Innovation initiatives should be closely aligned with the institution's core development objectives, such as program development and industry-education integration, and focused on areas with the greatest potential for breakthrough impact. A tiered project evaluation mechanism should be introduced, assessing initiatives across dimensions of feasibility, effectiveness, and scalability, with priority given to projects capable of leveraging modest inputs into tangible improvements in teaching quality and demonstrating rapid implementation and replicability. For selected projects, necessary financial, temporal, and professional support should be provided through integrated school-enterprise resources and cross-disciplinary collaboration.

8. Could you describe a specific situation in which psychological safety (or the lack thereof) significantly impacted the progress or outcome of an innovation initiative?

Drawing on the example of an industry-education integrated training workshop for an e-commerce program, the interviewee described multiple systemic obstacles encountered during implementation. First, misalignment between institutional and enterprise objectives was evident, with enterprises prioritizing operational efficiency and economic returns, while the institution emphasized teaching goals and student competency development. This divergence led to prolonged negotiations over collaboration details and significant project delays. Second, insufficient cross-departmental coordination within the institution, particularly among academic affairs, training, and finance units, resulted in segmented approval processes that extended timelines for critical tasks such as space renovation and equipment procurement. Third, frontline teachers' limited enterprise practice experience created gaps between instructional guidance and real project demands, while incomplete school-enterprise collaboration mechanisms hindered timely enterprise-led training and capacity compensation. The accumulation of these factors not only slowed project implementation but also weakened alignment between training content, curricular objectives, and industry needs, illustrating the tangible consequences of inadequate supportive structures and clear operational processes in complex collaborative contexts.

9. During digital transformation, how should vocational colleges establish systematic and ongoing evaluation mechanisms to assess digital progress?

The interviewee explained that the institution constructed a comprehensive evaluation framework encompassing process advancement, practical effectiveness, and long-term impact. Quantitatively, digital platforms are used to continuously monitor key indicators such as the coverage of teaching digitalization, the rate of shared teaching and management resources, and faculty and student usage of digital tools, providing objective measures of transformation breadth and operational intensity. Qualitatively, systematic feedback is collected through surveys, semi-

structured interviews, and interviews with faculty and students, complemented by expert evaluations from industry partners to assess the extent to which digital transformation substantively enhances teaching quality and talent development outcomes. In addition, digital transformation outcomes are analytically linked to core institutional indicators, such as talent cultivation quality and school-enterprise collaboration efficiency, to more accurately assess their strategic value and contribution to overall institutional development.

10. How should evaluation results be effectively used to adjust and refine the digital strategy? Please illustrate with an example.

The interviewee noted that evaluation findings frequently expose deep-seated cognitive and institutional barriers, including entrenched work habits and mindsets that limit adaptation to digital tools, the absence of supportive incentive and safeguard mechanisms, and hierarchical communication patterns that constrain open collaboration. To address these challenges, a phased intervention strategy can be adopted. In the first phase, awareness is raised through case-based learning and thematic seminars that systematically demonstrate the value of digital collaboration and resource sharing. In the second phase, pilot initiatives are launched in well-prepared programs, with shared resource repositories established alongside clear security protocols to reduce uncertainty and establish demonstrative examples. In the third phase, successful experiences are scaled up, and open sharing and collaborative contributions are formally incorporated into evaluation and incentive systems, allowing new behavioral norms to be gradually internalized as core elements of organizational culture. Throughout this process, evaluation results are used diagnostically to identify developmental stages and to guide the formulation and continuous refinement of targeted interventions.

Interviewee 11

1. What are the primary structural or cultural factors influencing the transparent flow of information across different levels in your vocational college?

The interviewee argued that impediments to transparent information flow do not stem from a single cause but rather from the cumulative interaction of multiple structural and cultural factors. At the structural level, the technical infrastructures and procedural designs that support information exchange across management tiers operate with relatively low efficiency, constraining the timeliness and effectiveness of information transmission and sharing. At a deeper cultural level, differences in role positioning and professional experience across hierarchical levels have gradually produced relatively fixed modes of thinking and cognitive frames, which directly shape individuals' judgments regarding the importance of information and their willingness to disseminate it. In addition, during concrete implementation processes, the strength of responsibility awareness among departmental staff and relevant leaders plays a decisive role in shaping the proactiveness, rigor, and completeness of information handling, thereby amplifying or weakening information transparency in practice.

2.What specific mechanisms or practices could be implemented at the organizational level to enhance the transparency and efficiency of information sharing?

The interviewee emphasized that systematic organizational improvement should focus on the coordinated advancement of three key components. First, technical carriers for information and data circulation, such as integrated data platforms, should be established and continuously optimized, as they constitute the foundational condition for improving information accessibility. Second, these tools must be complemented by scientifically designed and standardized data management and review procedures that ensure data quality, security, and compliance, thereby providing institutional guarantees for effective information sharing. Third, and most fundamentally, sustained training and cultural development initiatives are required to enhance data literacy, critical thinking capacity, and proactive data utilization awareness among information users and decision-makers at all levels, enabling data to function as a core resource for evidence-based decision-making and organizational improvement.

3. In the context of vocational education, how should administrators effectively encourage critical thinking and innovative reflection among faculty and staff?

According to the interviewee, managers should implement a set of mutually reinforcing strategies. First, targeted training programs should be provided for teachers to strengthen their capacity for data awareness and information discernment, enhancing sensitivity to and deep analytical engagement with teaching and management data, thereby supplying a methodological foundation for critical thinking. Second, leaders themselves must act as role models by systematically organizing, analyzing, and strategically sharing data, demonstrating through practice how data-driven reflection and decision-making are enacted. Finally, it is essential to cultivate an organizational climate characterized by openness, inclusiveness, and a shared pursuit of excellence, in which evidence-based and logic-driven discussion is encouraged and constructive dissent is protected, thus activating internal motivation and innovative momentum among team members.

4. Based on your experience, could you share a specific strategy or case in which you provided intellectual stimulation to foster team growth?

Reflecting on a curriculum system restructuring reform that the interviewee led, the interviewee identified two forms of deep engagement as critical to its success. First, through workshops, case discussions, and other interactive formats, sustained effort was devoted to guiding faculty members to gradually understand the deeper logic, practical necessity, and future prospects of the reform. This process strengthened rational acceptance and proactive engagement, enabling staff to systematically break away from entrenched cognitive frameworks that had become misaligned with the evolving demands of the cultural tourism industry. Second, throughout the reform process, objectives were consistently linked to individuals' core professional interests, career development trajectories, and the long-term direction of the department. By conveying that the reform served not only organizational goals but also more sustainable individual futures, external

institutional requirements were internalized as a shared source of intrinsic motivation within the team.

5.What are the main challenges in establishing and maintaining a transparent and credible accountability system in a vocational college?

The interviewee contended that the most fundamental challenge lies not in the accountability system's formal design but in its designers and guardians, namely, the leadership. The core issue concerns leaders' decision-making competence and developmental mindset. If leaders lack firm commitment, strategic vision, and selfless integrity in establishing and defending transparent and fair systems, or if their own decision-making processes are characterized by ambiguity, arbitrariness, or susceptibility to non-institutional influences, then even formally well-designed accountability frameworks will struggle to attain genuine authority and sustained credibility. In this sense, leaders' value orientations, professional capacity, and exemplary conduct constitute the foundational conditions for the credible operation of accountability systems.

6.What mechanisms should be in place to ensure that the accountability system is not only established but also widely recognized and trusted by faculty and staff?

The interviewee emphasized the importance of constructing a dual mechanism of "rule co-governance" and "benefit sharing" to consolidate trust. First, faculty and staff should be broadly mobilized to participate in the joint formulation of accountability rules and procedures, ensuring that these rules are specific, clear, and operational, and that they are transformed into collective consensus and organizational contracts through systematic learning and deliberation. More critically, accountability systems must be tightly linked to resource allocation and development opportunities, with particular attention to integrating the strategic use of resources and mechanisms for sharing outcomes. Through this approach, organizational members can Relatively perceive realistic pathways to receiving support and sharing development gains under fair rules, thereby establishing deep

trust in the system through the combined experience of procedural justice and material resonance.

7. In a resource-constrained vocational college, how should administrators cultivate an organizational climate that allows for prudent risk-taking and learning from failure?

The interviewee noted that this issue places exceptionally high demands on leaders' strategic foresight and refined management capabilities. First, leaders must possess a clear understanding of industry development trends and the institution's overall direction, enabling them to accurately identify innovation projects with genuine developmental potential and to avoid allocating scarce resources to "pseudo-innovations" lacking real-world foundations. Second, development plans with clear objectives, explicit responsibilities, and well-defined phases should be formulated to ensure that innovation trajectories remain tightly aligned with institutional or departmental strategies. Finally, in terms of resource allocation, key resources, such as time, funding, and expertise, should be highly integrated by designing "firewall" mechanisms and phased investment strategies for core innovation projects, alongside rapid trial-and-error and systematic review processes. In this way, limited resources are transformed into "safety capital" that supports prudent risk-taking and into "necessary costs" that facilitate organizational learning.

8. Could you describe a specific situation in which psychological safety (or the lack thereof) significantly impacted the progress or outcome of an innovation initiative?

Using a failed innovation initiative as an example, the interviewee identified two critical obstacles. First, project goals were disconnected from actual needs and practical conditions, originating from closed-door conceptualization lacking industry application scenarios or instructional support environments. This led team members to question the project's value from the outset, making it difficult to generate shared commitment and sustained engagement. Second, leadership and management lacked the necessary foresight and support systems in this domain, failing to provide a credible vision, resource guarantees at key milestones, or psychological support in

the face of challenges. Under such conditions, team members tended toward silence, problem avoidance, and risk aversion, ultimately resulting in projects that either remained at a superficial compliance level or were prematurely terminated due to insurmountable practical obstacles, yielding no substantive outcomes.

9. During digital transformation, how should vocational colleges establish systematic and ongoing evaluation mechanisms to assess digital progress?

The interviewee argued that evaluation mechanisms should be regarded as an integral component of digital transformation itself and constructed holistically across three dimensions: infrastructure, capability, and culture. At the infrastructure level, efficient and stable information management platforms and data exchange systems should be established to ensure the accessibility and traceability of evaluation data. At the capability level, systematic strengthening of teachers' competencies in digital tool application, innovation methodologies, and digital thinking is essential to enhance their substantive participation in and promotion of digital transformation. At the cultural level, widely regarded as a marker of transformation maturity, the principles of resource sharing and collaborative development should be fully embedded into everyday teaching, management, and innovation practices. Evaluation should focus on the depth of development, breadth of integration, and effectiveness of outputs across these three dimensions.

10. How should evaluation results be effectively used to adjust and refine the digital strategy? Please illustrate with an example.

The interviewee noted that whether evaluation results can be translated into strategic optimization momentum depends heavily on leadership's accurate understanding of internal and external environments, its capacity to build strategic consensus, and its effectiveness in securing support from higher-level authorities. For example, when evaluations indicate low utilization and limited educational impact of virtual simulation training resources, optimization strategies should not be confined to expanding resource inventories. Instead, leaders should leverage evaluation data in conjunction with informed analyses of digital trends in the cultural tourism industry, such as the metaverse and AR-guided experiences, and relevant policy

orientations to systematically justify a strategic shift from “resource possession” toward “integrated, application-oriented transformation.” On this basis, management should lead the formulation of targeted implementation plans that align effective use of virtual simulation resources with mechanisms such as curriculum quality certification and teaching achievement recognition, supplemented by dedicated incentive schemes. Through practices such as developing interdisciplinary demonstration courses and organizing instructional design competitions, teachers can be gradually guided to form shared understanding and deep recognition of the value and pathways of digital pedagogy, ensuring that strategic optimization materializes as sustainable improvements in teaching practice.

Interviewee 12

1.What are the primary structural or cultural factors influencing the transparent flow of information across different levels in your vocational college?

The interviewee attributed impediments to transparent information flow to the combined effects of structural and cultural barriers. At the structural level, the presence of multiple organizational layers, pronounced functional segmentation among departments, and insufficient integration between teaching systems and administrative systems often lead to delays, filtering, and distortion during information transmission. At the cultural level, some teachers exhibit a tendency to “report positive outcomes while withholding problems, ” driven by concerns that exposing difficulties may negatively affect performance evaluations or increase additional workload. Meanwhile, bottom-up feedback channels within the institution remain relatively constrained, and response mechanisms to grassroots input lack timeliness, making it difficult for frontline realities to be promptly perceived and transformed into effective decision-making inputs.

2.What specific mechanisms or practices could be implemented at the organizational level to enhance the transparency and efficiency of information sharing?

The interviewee proposed a coordinated approach encompassing platform development, capacity building, and organizational collaboration. First, an institution-level integrated data platform should be established to centrally aggregate core data such as course evaluations, academic early-warning indicators, and research outputs. By implementing differentiated access permissions, departments and faculty members can obtain necessary information conveniently and in compliance with regulations. Second, a systematic “data literacy enhancement program” should be implemented, with each semester offering targeted training focused on data tool operation, basic analytical methods, and data visualization, enabling teachers and administrative staff to acquire practical competencies. Third, cross-functional data application teams composed of teaching staff, student affairs personnel, and administrative officers should be formed at the institutional level to conduct regular analyses of key indicators and translate analytical findings into actionable recommendations for teaching improvement or management optimization, thereby enhancing the practical value of data use.

3. In the context of vocational education, how should administrators effectively encourage critical thinking and innovative reflection among faculty and staff?

According to the interviewee, the key lies in creating institutional space for developmental exploration through both policy design and everyday management. On the one hand, performance target setting should explicitly reserve flexible space to support teachers’ developmental objectives, incorporating participation in curriculum reform and instructional resource development into evaluation frameworks, while providing corresponding financial, temporal, or collaborative support. On the other hand, normalized informal communication mechanisms should be established through regular forums and individual consultations, enabling managers to proactively understand teachers’ needs related to professional development, workload, and psychological well-being, and to respond through institutional adjustment or resource coordination. Such practices help cultivate a relatively open and supportive working environment.

4. Based on your experience, could you share a specific strategy or case in which you provided intellectual stimulation to foster team growth?

Drawing on a curriculum reform initiative that the interviewee led, the interviewee illustrated how intellectual stimulation contributed to team development. In the initial phase, multiple open-ended workshops were organized not only to articulate the necessity of reform but also to invite frontline teachers to jointly diagnose existing problems, gradually transforming the question of “why reform is needed” into a shared team consensus. At the organizational level, a dedicated task group comprising core teachers, program leaders, and industry representatives was established to ensure the integration of diverse perspectives. Reform proposals underwent multiple rounds of public consultation and revision, fostering a strong sense of ownership among teachers. During implementation, pilot teams received additional resource support, and experiences and challenges encountered were regularly shared publicly, framing the process of overcoming difficulties as a collective learning narrative. This approach facilitated a shift from passive compliance to proactive collaboration within the team.

5. What are the main challenges in establishing and maintaining a transparent and credible accountability system in a vocational college?

The interviewee identified the core challenge as achieving an appropriate balance between “performance accountability” and “professional development.” On the one hand, accountability systems that overemphasize quantitative indicators and outcome-based penalties tend to trigger defensive behaviors among teachers, encouraging short-termism and risk avoidance. On the other hand, if accountability mechanisms lack clear responsibility tracing and meaningful consequences, they risk becoming symbolic and ineffective, failing to provide adequate normative guidance or behavioral regulation.

6. What mechanisms should be in place to ensure that the accountability system is not only established but also widely recognized and trusted by faculty and staff?

The interviewee suggested enhancing system credibility through a combination of ex ante procedural design, standardized implementation processes, and structured feedback mechanisms. First, prior to decision initiation, committee-based deliberation should be used to clarify and publicly disclose priority rankings, specific criteria, and weighting schemes for resource allocation or evaluation. Second, standardized management of documentation should be implemented, requiring all applicants or evaluated parties to submit materials using uniform templates to ensure informational equivalence. Third, review panels composed of multiple stakeholder representatives should be formed to conduct back-to-back evaluations followed by collective deliberation, with full records of discussions retained. Finally, upon result disclosure, concise explanations of decision rationales should be provided, along with the establishment of formal appeal and review channels managed by third-party committees, thereby forming a complete institutional feedback loop.

7. In a resource-constrained vocational college, how should administrators cultivate an organizational climate that allows for prudent risk-taking and learning from failure?

The interviewee emphasized that strategic prioritization must remain tightly aligned with the institution's core mission and overall development plan. The interviewee's institution adopted a relatively streamlined evaluation framework: first assessing alignment with program cluster development, key talent cultivation gaps, or major policy orientations; second evaluating the scope and sustainability of potential impact; and finally considering the project team's execution capacity and likelihood of success. On this basis, limited resources were concentrated on innovation initiatives exhibiting both high strategic value and practical feasibility.

8. Could you describe a specific situation in which psychological safety (or the lack thereof) significantly impacted the progress or outcome of an innovation initiative?

Using a school-enterprise collaboration project as an example, the interviewee noted that insufficient psychological safety often arises from multiple

systemic constraints. Specifically, rigid curriculum scheduling made it difficult to coordinate unified timeframes for cross-disciplinary project implementation; workload accounting mechanisms were underdeveloped, as the effort required to supervise cross-disciplinary teams significantly exceeded conventional workload calculations without receiving corresponding recognition; and existing disparities in evaluation standards across programs made it challenging to reach consensus on assessing project outcomes. Collectively, these factors undermined teachers' psychological safety and sustained engagement, thereby constraining project advancement.

9. During digital transformation, how should vocational colleges establish systematic and ongoing evaluation mechanisms to assess digital progress?

The interviewee advocated for a mixed-methods evaluation approach combining quantitative and qualitative measures. On the quantitative side, key performance indicators should be used to continuously monitor progress-oriented metrics such as digital teaching platform usage rates, the proportion of administrative processes conducted online, and core data interoperability levels. On the qualitative side, regular user experience surveys and semi-structured interview interviews with faculty and students should be conducted to collect feedback on tool usability, satisfaction with support services, and perceived changes in work and learning efficiency. In addition, selected teaching or management scenarios can be examined through before-and-after comparative analyses to assess the actual impact of digital interventions.

10. How should evaluation results be effectively used to adjust and refine the digital strategy? Please illustrate with an example.

The interviewee observed that obstacles revealed through evaluation are often rooted in deep-seated mindsets and existing organizational structures, manifesting primarily in three dimensions. First, an individualistic competitive mentality of "knowledge as power" leads some teachers to regard exclusive resources as professional advantages, reducing their willingness to engage in knowledge sharing and collaboration. Second, a perceived sense of "time scarcity" causes some teachers to believe that exploring and applying new tools or models

will further encroach upon already heavy teaching and administrative workloads, fostering conservative attitudes toward innovation. Third, a tendency toward “risk aversion” leads some teachers to worry that resource sharing may result in misunderstanding, misuse, or accountability disputes, thereby discouraging openness. These findings provide clear direction for subsequent digital strategy optimization by highlighting critical cognitive and institutional intervention points.

Interviewee 13

1.What are the primary structural or cultural factors influencing the transparent flow of information across different levels in your vocational college?

The interviewee argued that transparent information flow is shaped by factors operating at three interconnected levels. First, the precision and implementability of top-level decision-making constitute the point of origin for information transmission; the clarity of strategic intent directly affects subsequent understanding and execution. Second, the interpretive and translational capacity of middle- and grassroots-level units during policy dissemination and implementation represents a critical linkage, determining whether policy intentions are accurately conveyed and operationalized. Finally, teachers’ cognitive readiness and comprehension capacity influence how information is received, processed, and internalized at the terminal level, thereby determining whether transparency is ultimately translated into collective action.

2.What specific mechanisms or practices could be implemented at the organizational level to enhance the transparency and efficiency of information sharing?

The interviewee suggested a systematic approach across three dimensions: technical support, institutional embedding, and capacity development. First, by establishing a unified data governance platform and self-service data access system, data accessibility and usability can be enhanced at the technical level. Second, data-based evaluation and review mechanisms should be embedded throughout the

entire decision-making cycle, promoting closed-loop operation across decision formulation, implementation, and feedback. This process supports the cultivation of an organizational culture that emphasizes “speaking with data” and strengthens data-informed decision-making practices. Third, through differentiated and tiered training, capability development within authentic work scenarios, and the alignment of effective incentive mechanisms, a coordinated “triple-integration” pathway can be formed to systematically elevate organizational digital literacy.

3. In the context of vocational education, how should administrators effectively encourage critical thinking and innovative reflection among faculty and staff?

The interviewee emphasized that managers should strategically leverage the guiding function of performance management, grounded in a clear understanding of policy orientations. By closely aligning performance appraisal indicators with institutional priorities and high-quality development goals, teachers can be encouraged to integrate personal professional growth, a sense of career achievement, and organizational objectives while participating in reform initiatives and key institutional tasks. In this way, positive institutional incentives for critical thinking and innovative practice are established at the system level.

4. Based on your experience, could you share a specific strategy or case in which you provided intellectual stimulation to foster team growth?

Based on experience in advancing major institutional reforms, the interviewee summarized three strategies that played a decisive role. First, decision-making itself must exhibit a high degree of clarity, specificity, and persuasiveness, providing a foundation for shared understanding within the team. Second, responsibilities should be relatively delineated and accompanied by actionable timelines, task lists, and roadmaps, enabling team members to proceed with clear reference points during implementation. Finally, leaders must demonstrate accountability and ownership during execution by providing continuous, timely, and effective follow-up and support, thereby strengthening team confidence and execution capacity.

5.What are the main challenges in establishing and maintaining a transparent and credible accountability system in a vocational college?

The interviewee identified the most significant challenge as achieving effective coordination and linkage across departments and organizational levels. The smooth functioning of an accountability system relies heavily on alignment among personnel, teaching, research, and supervisory units in terms of standards, process integration, and information sharing. Any disconnect at one point in this chain may undermine the overall effectiveness of the accountability mechanism.

6.What mechanisms should be in place to ensure that the accountability system is not only established but also widely recognized and trusted by faculty and staff?

According to the interviewee, procedural justice should be safeguarded through structured, transparent, and participatory process design that spans the full cycle from rule formulation and implementation to outcome feedback. In parallel, institutional leaders must engage in proactive and sustained communication with faculty and staff, Relatively explaining the rationale, operational logic, and implementation processes underlying decisions. Such transparency enhances understanding and acceptance of both procedural fairness and outcome legitimacy.

7.In a resource-constrained vocational college, how should administrators cultivate an organizational climate that allows for prudent risk-taking and learning from failure?

The interviewee proposed project-based operation as an effective strategy for advancing innovation. This approach facilitates clear accountability, closed-loop management, and tangible outcomes, and is particularly suitable for complex tasks requiring cross-departmental collaboration in vocational institutions. Through project-based mechanisms, limited resources can be allocated and mobilized more efficiently, enabling cautious risk-taking and iterative learning within a controlled and manageable scope.

8. Could you describe a specific situation in which psychological safety (or the lack thereof) significantly impacted the progress or outcome of an innovation initiative?

The interviewee illustrated this issue using the development of a virtual simulation training base as an example. Traditional intelligent manufacturing training has long faced challenges such as high equipment costs, constrained application scenarios, and insufficient hands-on opportunities for students. Through a project-based operational model and joint development with local intelligent manufacturing enterprises, the institution effectively overcame departmental barriers and resource constraints embedded in conventional practices. The clear objectives, delegated authority, and resource guarantees inherent in the project-based approach fostered a psychologically safe environment conducive to exploration and collaborative problem-solving, which was regarded as a critical factor in the project's successful initiation and implementation.

9. During digital transformation, how should vocational colleges establish systematic and ongoing evaluation mechanisms to assess digital progress?

The interviewee argued for the construction of a multidimensional, process-oriented evaluation system with a strong emphasis on practical outcomes. The evaluation framework should be closely aligned with the institution's mission and digital transformation objectives and systematically designed around the full chain of "inputs, processes, outputs, and impacts," ensuring coherence, continuity, and strategic alignment over time.

10. How should evaluation results be effectively used to adjust and refine the digital strategy? Please illustrate with an example.

The interviewee noted that evaluation results often reveal critical technical bottlenecks, such as low utilization rates of existing digital tools and the emergence of data silos and collaboration barriers due to system incompatibility. Based on such findings, digital strategy optimization should prioritize technical integration and usability enhancement. For example, institutions may initiate dedicated "system interoperability" initiatives to standardize data interfaces across core operational

platforms. At the same time, where system usage remains low, evaluation findings can be translated directly into actionable improvement measures by optimizing user interface design and implementing workshop-based training grounded in authentic work tasks, thereby linking assessment outcomes with concrete strategic adjustments.

Interviewee 14

1.What are the primary structural or cultural factors influencing the transparent flow of information across different levels in your vocational college?

The interviewee argued that transparent information flow is jointly constrained by structural and cultural factors. Structurally, hierarchical reporting systems tend to cause information to be filtered or attenuated as it moves upward through successive levels, while the lack of a unified cross-departmental information-sharing platform restricts horizontal information exchange. Culturally, long-established information-protection norms within technical departments, control-oriented managerial mindsets among some administrators, and insufficient trust among some faculty and staff regarding information openness collectively weaken the willingness to disclose and share information.

2.What specific mechanisms or practices could be implemented at the organizational level to enhance the transparency and efficiency of information sharing?

The interviewee suggested leveraging the department's technical strengths to establish a department-level data hub that integrates core operational data related to teaching, practical training, and graduate employment. Through tiered authorization and access-control mechanisms, data accessibility can be enhanced while ensuring security. For major decision areas such as professional cluster development, data support and evaluation mechanisms should be developed in parallel to provide traceable evidence for decision-making. In addition, differentiated digital literacy training and the establishment of dedicated data governance roles were identified as essential for safeguarding data quality and security, thereby

systematically strengthening data-driven decision-making at both institutional and individual levels.

3. In the context of vocational education, how should administrators effectively encourage critical thinking and innovative reflection among faculty and staff?

According to the interviewee, performance indicator design should place greater emphasis on recognizing innovative and application-oriented outcomes. For example, practical achievements such as guiding students in skills competitions or providing technical services to industry should be incorporated into evaluation systems to balance short-term performance pressures with long-term professional development goals. At the same time, sustainable technology-empowerment mechanisms, particularly those based on industry-college collaboration platforms, should be established to support teachers in obtaining advanced professional certifications and participating in real-world enterprise technology projects, thereby providing continuous momentum for innovative thinking and exploratory practice.

4. Based on your experience, could you share a specific strategy or case in which you provided intellectual stimulation to foster team growth?

Using the advancement of a “Double High Plan” professional cluster as an example, the interviewee noted that the core strategy lay in building developmental consensus through multiple rounds of thematic seminars. These seminars involved faculty and student representatives as well as industry experts, who jointly explored and articulated a clear development vision. On this basis, tiered training initiatives focusing on digital teaching capacity building and alignment with industry needs were implemented to strengthen the team’s execution foundation. Concurrently, multiple task-specific working groups were established to break down overarching objectives into concrete milestones and phased actions, effectively ensuring goal attainment while enhancing overall team capability.

5. What are the main challenges in establishing and maintaining a transparent and credible accountability system in a vocational college?

The interviewee identified the core challenge as the high degree of overlap among teaching, practical training, and research activities in vocational institutions, which makes it difficult to Relatively delineate responsibility and accountability. For instance, accountability for the quality of practical training often involves multiple departments, making it challenging to identify a single primary responsible unit. Moreover, the prevalence of relationship-oriented management practices weakens the rigidity of accountability mechanisms. In addition, certain key domains, such as professional ethics and curriculum-based ideological education, lack easily quantifiable indicators, further complicating the establishment of unified and operational accountability standards.

6.What mechanisms should be in place to ensure that the accountability system is not only established but also widely recognized and trusted by faculty and staff?

The interviewee emphasized that, in high-stakes decisions, all decision rules and resource allocation criteria must be disclosed in advance, alongside the construction of a diversified and balanced evaluation indicator system to avoid overly narrow assessment orientations. Decision outcomes should be publicly announced for no fewer than five working days, with Relatively defined channels for appeal and reconsideration. Furthermore, all major issues should be deliberated and approved through joint Party-administrative meetings, thereby ensuring procedural legitimacy, fairness, and the acceptability of outcomes.

7.In a resource-constrained vocational college, how should administrators cultivate an organizational climate that allows for prudent risk-taking and learning from failure?

The interviewee argued that leaders need to establish clear strategic anchoring by prioritizing innovation initiatives that closely align with regional core development strategies, such as projects supporting Guizhou's digital economy. By integrating industry-college resources to co-develop training bases and encouraging cross-disciplinary teams to collaborate on curriculum development, existing resources can be reused more effectively. Core projects with demonstrated

effectiveness and high-potential initiatives should receive prioritized investment and be managed through project-based mechanisms, optimizing time and human resource allocation while enabling controlled experimentation and learning.

8. Could you describe a specific situation in which psychological safety (or the lack thereof) significantly impacted the progress or outcome of an innovation initiative?

The interviewee described a practical training platform development project in which insufficient cross-departmental coordination constituted the most critical barrier. Departments such as academic affairs, logistics, and information services operated with divergent objectives and lacked routine communication mechanisms, leading to repeated delays in requirement alignment. Meanwhile, rapid technological iteration necessitated frequent adjustments to project specifications, further increasing complexity and costs. These factors jointly constrained overall project progress and eroded team members' psychological safety and willingness to sustain engagement.

9. During digital transformation, how should vocational colleges establish systematic and ongoing evaluation mechanisms to assess digital progress?

The interviewee proposed constructing a comprehensive evaluation system incorporating key performance indicators to continuously monitor both process-oriented and outcome-oriented measures, such as the digitalization rate of teaching resources and student competition achievements facilitated by digital platforms. In parallel, questionnaires and in-depth interviews targeting faculty, students, and administrators should be employed to qualitatively assess experiential perceptions, acceptance levels, and practical impacts of digital transformation, thereby enabling a more holistic evaluative judgment.

10. How should evaluation results be effectively used to adjust and refine the digital strategy? Please illustrate with an example.

The interviewee emphasized that evaluation findings should directly inform the dynamic optimization of digital strategies. For example, when assessments indicate that insufficient digital competencies among teachers constitute a major

Assessment checklist of the Development of Leadership Style Model for
Administrators in Vocational Colleges in Guizhou.

Greetings!We would like to ask you to evaluate the applicability of the Development of Leadership Style Model for Administrators in Vocational Colleges in Guizhou, and sincerely invite you to participate in this survey.Thank you for your support.

This questionnaire utilizes a 5-level scoring, The numbers 5, 4, 3, 2 and 1 correspond to highest, high, average, low, and lowest.

Assessment checklist	Suitability					Feasibility				
	5	4	3	2	1	5	4	3	2	1
Information leadership										
1.Create a centralized institutional data platform that integrates academic affairs, student affairs, research, logistics, and other related systems.										
2.Develop explicit data-sharing policies and a multi-level access control mechanism aimed at breaking down information silos.										
3.Set up a dedicated data analysis team (or data										

Appendix D

The Results of the Quality Analysis of Research Instruments

The index of objective congruence (IOC)

The Development of Leadership Style Model for Administrators in Vocational Colleges in Guizhou

No.	Item	Experts					IOC	Validity
		1	2	3	4	5		
Information leadership								
1	Administrators manage information as a strategic asset for institutional planning and administration.	1	1	1	1	1	1.00	Valid
2	Administrators effectively utilize data and evidence in key strategic decision-making.	1	1	1	1	1	1.00	Valid
3	Administrators actively promote transparent information sharing across all organizational hierarchies.	1	1	0	1	1	0.80	Valid
4	Administrators systematically implement initiatives to enhance the overall digital literacy of the organization.	1	1	1	1	1	1.00	Valid
5	Administrators support the integration of technological tools into pedagogical and operational innovation.	1	1	1	1	0	0.80	Valid
6	Administrators establish effective information governance frameworks to ensure information quality and security.	1	1	1	1	1	1.00	Valid
7	Administrators are committed to cultivating a data-driven decision-making and learning culture within the organization.	1	1	1	0	1	0.80	Valid
8	Administrators are capable of transforming information capabilities into	1	1	1	1	1	1.00	Valid

No.	Item	Experts					IOC	Validity
		1	2	3	4	5		
	a sustained competitive advantage for the institution.							
Transformational leadership								
1	Administrators can articulate a clear and compelling shared vision for the institution's future development.	1	1	1	1	1	1.00	Valid
2	Administrators serve as role models in terms of ethical conduct and professional dedication.	1	1	1	1	1	1.00	Valid
3	Administrators demonstrate genuine concern for the personal well-being and professional growth of staff.	1	1	0	1	1	0.80	Valid
4	Administrators encourage critical thinking and provide intellectual stimulation to foster growth.	1	1	1	1	0	0.80	Valid
5	Administrators are capable of inspiring staff to transcend self-interest and commit themselves to the collective objectives of the organization.	1	1	1	1	1	1.00	Valid
6	Administrators emphasize and demonstrate high moral standards and integrity in their leadership.	1	1	1	1	1	1.00	Valid
7	Administrators make deliberate efforts to identify and cultivate leadership potential in their subordinates.	1	1	1	0	1	0.80	Valid
Ethical leadership								
1	Administrators demonstrate personal integrity and strong moral character in their actions and values.	1	1	1	1	1	1.00	Valid

No.	Item	Experts					IOC	Validity
		1	2	3	4	5		
2	Administrators adhere to principles of fairness and justice in all their decisions and actions.	1	1	1	1	1	1.00	Valid
3	Administrators establish and maintain a transparent and credible accountability system.	1	1	0	1	1	0.80	Valid
4	Administrators actively cultivate an organizational culture characterized by mutual respect and inclusion.	1	1	1	1	1	1.00	Valid
5	Administrators ensure that resource allocation processes are equitable and justified, and outcomes are fair.	1	1	1	1	0	0.80	Valid
6	Administrators display genuine altruistic concern and a sense of moral responsibility towards the community and stakeholders.	1	1	1	1	1	1.00	Valid
Innovative leadership								
1	Administrators communicate a forward-looking vision that encourages exploration and experimentation.	1	1	1	1	1	1.00	Valid
2	Administrators foster a psychologically safe climate that tolerates prudent risk-taking and learning from failure.	1	1	0	1	1	0.80	Valid
3	Administrators provide adequate resources (time, funding, training) to support innovative initiatives.	1	1	1	1	0	0.80	Valid
4	Administrators actively encourage and facilitate interdisciplinary and cross-departmental collaboration.	1	1	1	1	1	1.00	Valid

No.	Item	Experts					IOC	Validity
		1	2	3	4	5		
5	Administrators empower individuals and teams through delegation to foster autonomous creativity.	1	1	1	1	1	1.00	Valid
6	Administrators establish effective feedback mechanisms conducive to continuous learning and improvement.	1	1	1	0	1	0.80	Valid
7	Administrators provide timely recognition and reward for both innovation processes and outcomes.	1	1	1	1	1	1.00	Valid
8	Administrators personally demonstrate adaptability and agility in response to change.	1	1	1	1	1	1.00	Valid
Digital leadership								
1	Administrators possess the competency to apply key digital technologies within educational contexts.	1	1	0	1	1	0.80	Valid
2	Administrators formulate and proactively champion the institution's digital transformation strategy.	1	1	1	1	1	1.00	Valid
3	Administrators cultivate an organizational culture that values digital collaboration, openness, and knowledge sharing.	1	1	1	1	1	1.00	Valid
4	Administrators support the implementation of agile and virtualized workflows within the organization.	1	1	1	0	1	0.80	Valid
5	Administrators integrate considerations of digital ethics and data security into the institution's practices.	1	1	1	1	1	1.00	Valid
6	Administrators promote the identification,	1	1	1	1	1	1.00	Valid

No.	Item	Experts					IOC	Validity
		1	2	3	4	5		
	development, and motivation of digitally skilled talent.							
7	Administrators advocate for and support innovation in teaching and administration through the use of digital technologies.	1	1	1	1	0	0.80	Valid
8	Administrators establish strategic partnerships and linkages with external digital ecosystems.	1	1	1	1	1	1.00	Valid
9	Administrators systematically evaluate digital progress and continuously refine the digital strategy.	1	1	0	1	1	0.80	Valid

Scoring criteria: 1 = congruent, 0 = uncertain, -1 = not congruent; IOC $\geq$ 0.67 is considered valid

Appendix E

Certificate of English



This is to certify that

Mr. Shanchi Luo

Achieved BSRU English Proficiency Test (BSRU-TEP) level

C1

Given on 3rd October 2020

(Assistant Professor Dr Kulsirin Aphiratvoradej)

Director

Appendix F

The Document for Acceptance Research

SCIENTIFIC CULTURE https://sci-cult.com ISSN: (online) 2407-9529; (print) 2408-0071		Acceptance Letter  
To Patchara Dechhome *Corresponding Author: patchara.de@bsru.ac.th		Ref #: SC-235 Date: Mar 12, 2026
1	Title	The Development Of Leadership Style Model For Administrators In Vocational Colleges In Guizhou
	Journal Name	SCIENTIFIC CULTURE
	ISSN	2407-9529
	Major Indexing	• Scopus, Scimago (Q1), ERIH PLUS, EBSCOhost™, ULRICHSWEB Global Serials Directory, Academic Keys, Getty Conservation Institute Project Bibliographies, Google Scholar, Gale/Cengage
	Authors	¹ Luo Shanchi, ² Pachara Dechhome*, ³ Niran Suteeniran, ⁴ Sarayuth Sethakhajom, ⁵ Achara Niyamabha ^{2*} Corresponding Author: patchara.de@bsru.ac.th
Note: It is a conditional letter of acceptance as the author has completed all requirements of publication so far. This letter is only for academic promotion or graduate studies requirements.		
	Volume	12
	Issue	4

Managing Editor

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