THE MODEL FOR DEVELOPMENT OF INFORMATION LEADERSHIP OF MID-LEVEL ADMINISTRATORS IN PRIVATE UNIVERSITIES IN GUANGXI

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A thesis submitted in partial fulfillment of the requirements for
the Degree of Doctor of Philosophy Program in Educational Administration
Academic Year 2022

Thesis Title   The Model for Development of Information Leadership of Mid-Level
Administrators in Private Universities in Guangxi

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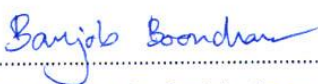
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Academic Year: 2022

ABSTRACT

The objectives of this study were: 1) To study the current situation of development of Information Leadership of Mid-Level Administrators in Private Universities in Guangxi. 2) To develop the model for development of Information Leadership of Mid-Level Administrators in Private Universities in Guangxi. 3) To evaluate the adaptability and feasibility of the model for development of Information Leadership of Mid-Level Administrators in Private Universities in Guangxi. The sample group was 254 Mid-Level Administrators from 11 private universities in Guangxi. Research tools such as questionnaires, structured interviews, and evaluation tables were used. Statistical methods such as percentage, average, standard deviation, and content analysis were used to analyze the data.

The research results show that: 1) The current situation of information leadership development of Mid-Level Administrators in private universities in Guangxi is at a medium level. The average score of information evaluation ability is the highest, followed by information management ability, information planning ability, and information technology ability. 2) The development model of information leadership includes four aspects: information technology ability model, information planning ability model, information management ability model, and information evaluation ability model. The adaptability and feasibility evaluation results of the model are high.

ชื่อเรื่อง	รูปแบบการพัฒนาภาวะผู้นำเชิงสารสนเทศของผู้บริหารระดับในมหาวิทยาลัยเอกชนในมณฑลกวางสี
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ปีการศึกษา	2565

บทคัดย่อ

     การวิจัยครั้งนี้มีวัตถุประสงค์ 1) เพื่อศึกษาสภาพปัจจุบันของการพัฒนาภาวะผู้นำเชิงสารสนเทศของผู้บริหารระดับกลางในมหาวิทยาลัยเอกชนในมณฑลกวางสี 2) เพื่อพัฒนารูปแบบการพัฒนาภาวะผู้นำเชิงสารสนเทศของผู้บริหารระดับกลางในมหาวิทยาลัยเอกชนในมณฑลกวางสี 3) เพื่อประเมินความเหมาะสมและความเป็นไปได้ของรูปแบบการพัฒนาภาวะผู้นำเชิงสารสนเทศของผู้บริหารระดับกลางในมหาวิทยาลัยเอกชนในมณฑลกวางสี กลุ่มตัวอย่างที่ใช้ในการวิจัยครั้งนี้ ได้แก่ ผู้บริหารระดับกลางมหาวิทยาลัยเอกชนในมณฑลกวางสี จำนวน 11 แห่ง รวมทั้งสิ้น 254 คน เครื่องมือที่ใช้ในการวิจัย ได้แก่ แบบสอบถาม แบบสัมภาษณ์แบบมีโครงสร้าง และแบบประเมิน สถิติที่ใช้ในการวิจัย ได้แก่ ค่าร้อยละ ค่าเฉลี่ยและส่วนเบี่ยงเบนมาตรฐาน

     ผลการวิจัยพบว่า สภาพปัจจุบันของการพัฒนาภาวะผู้นำเชิงสารสนเทศของผู้บริหารระดับกลางในมหาวิทยาลัยเอกชนในมณฑลกวางสีโดยภาพรวมอยู่ในระดับปานกลาง เมื่อพิจารณาเป็นรายด้าน พบว่า ความสามารถในการประเมินสารสนเทศมีค่าเฉลี่ยสูงสุด รองลงมาคือ ความสามารถในการจัดการสารสนเทศ และความสามารถด้านเทคโนโลยีสารสนเทศมีค่าเฉลี่ยต่ำสุด รูปแบบการพัฒนาภาวะผู้นำเชิงสารสนเทศของผู้บริหารระดับกลางในมหาวิทยาลัยเอกชนในมณฑลกวางสี ประกอบด้วย 4 ด้าน ได้แก่ 1) รูปแบบความสามารถด้านเทคโนโลยีสารสนเทศ 2) รูปแบบความสามารถด้านการวางแผนสารสนเทศ 3) รูปแบบความสามารถด้านการจัดการสารสนเทศ และ 4) รูปแบบความสามารถด้านการประเมินสารสนเทศ การประเมินความเหมาะสมและความเป็นไปได้ของรูปแบบการพัฒนาภาวะผู้นำเชิงสารสนเทศของผู้บริหารระดับกลางในมหาวิทยาลัยเอกชนในมณฑลกวางสีโดยภาพรวมอยู่ในระดับสูง

     คำสำคัญ ภาวะผู้นำเชิงสารสนเทศ ผู้บริหารระดับกลาง มหาวิทยาลัยเอกชนในมณฑลกวางสี

Acknowledgements

I am very lucky to be able to come to Thailand, a beautiful country, to study for a PhD at Bansomdejchaopraya Rajabhat University, Thailand not only has beautiful scenery and rich products, but also is a very famous tourism country in the world. More impressive and cheerful What's important is that Thai people are very friendly, very civilized and polite, and people always live in harmony and care for each other. in Thailand During the three years of schooling, I have always worked very hard to study and study, learning from my tutor and asking for advice from my classmates. When I encounter difficulties,I received a lot of selfless help from my teachers and classmates during this period. First of all, I would like to thank my main tutor and assistant teacher." Dr. Patchara. de. She takes her work very seriously, cares about us very much, and spends a lot of time guiding us attentively. Still Thank you to my two Co advisors. Assoc. Prof. Dr. Niran Sutheniran and Assoc. Prof. Dr. Jittawisut Wimutipanya And my Chinese mentor, Professor Tang Dehai, they have also given me a lot of guidance and assistance in my studies. If it weren't for your help,I won't finish my doctoral thesis so smoothly. Thank you! I also want to thank my classmates, we are not only learning Partners and friends in life, thank you for the wonderful time we spent together in Thailand! Finally, I also want to thank my family in particular. I'm often moved to think of them. My wife is very supportive of me studying in Thailand, She has to take care of two children in addition to work alone, which is very hard and not easy. Thank you for all the efforts she has made for me! The time spent studying in Thailand is short and precious. I will bring the knowledge taught by my school and mentors to start a new academic career

Thank you again!

Li Linwei

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Chapter 1

Introduction

Rationale

Educational Information is the only way and driving engine for China's educational modernization.

With the continuous development of information technology, global Information gradually took shape in the late 19th and early 20th centuries. Information became the commanding height of competition among countries in the process of global economic integration and social development. Educational Information also accompanied the arrival of the information age. developed rapidly. In recent years, China's education Information has developed very rapidly. The basic environment construction of educational Information, the development and application of educational and teaching resources, etc. have been greatly improved. The construction of educational Information has made remarkable achievements.

In February 2019, the Central Committee of the Communist Party of China and the State Council issued "China's Education Modernization 2035", which clarified that education Information is an important support and driving force for educational modernization. We will use modern technology to accelerate the reform of talent training mode, and realize the organic combination of large-scale education and personalized training. The overall goal is to realize the modernization of education as a whole by 2035, step into the ranks of educational powers, and promote China to become a great country in learning, human resources, and talents, and lay a solid foundation for building a prosperous, strong, democratic, culturally advanced, harmonious, and beautiful socialist modernized country by the middle of this century. Base. The "Education Information 2.0 Action Plan" points out: "Leading education modernization with the support of educational Information is a strategic choice for China's education reform and development in the new era, and is of great significance for building a strong country in education and human resources. Without

Information, there will be no modernization. Educational Information is the basic connotation and distinctive feature of educational modernization."

The era of China's educational Information 2.0 requires the innovative development of educational Information.

The "Education Information 2.0 Action Plan" issued by the Ministry of Education of China in 2018 put forward the concept of Education Information 2.0, marking that China's educational Information construction has moved from the past 1.0 era to a new 2.0 era. The era of education Information 2.0 is a transition and upgrade of the education Information construction in the 1.0 era, and profound changes have taken place in terms of construction concept, construction method, construction content and application mode. Promote the high-level evolution of educational Information from integrated application to innovative development, and deeply integrate information technology and intelligent technology into the whole process of education to promote improved teaching, optimized management, and improved performance. The Ministry of Education issued the "Education Information 2.0 Action Plan", proposing that "education Information should be regarded as an endogenous variable of education system reform, support and lead the development of education modernization, and start a new journey to build a strong education country". Build a large platform of "Internet + Education", promote the transformation from dedicated resources for education to large educational resources, from improving teachers and students' information technology application ability to comprehensively improving their information literacy, and from integrated application to innovative development, and strive to build "Internet +" conditions The new model of talent training, the development of a new model of Internet-based educational services, and the exploration of a new model of educational governance in the information age.

The development and popularization of education Information in private Universities in Guangxi, China needs to be deepened.

Guangxi is an underdeveloped frontier province in China. Its economy, culture and education are relatively backward, and the level of education Information construction also lags behind the whole country. The "Guangxi Education Information

Development Plan (2017-2020)" pointed out that there is still a significant gap between the construction and development of education Information in Guangxi compared with national requirements and developed provinces. The main manifestations are: some educational administrative departments and schools still do not fully recognize the revolutionary impact of information technology on education; the infrastructure of education Information is relatively weak, and the development of regional, urban and rural areas and schools is uneven; Information and education and teaching "two". The phenomenon of "open skin" still exists, and the supporting and leading role of information technology has not really been brought into play; the effective mechanism for the development and utilization of high-quality digital educational resources and the educational Information system urgently need innovation and improvement, and the ability of education management Information to support educational decision-making, management and service urgently needs to be Improve; teachers' information technology application ability still needs to be further improved, and schools' network security awareness and protection ability need to be strengthened. In the next few years, education Information will still be an urgent and arduous task for our district to accelerate the process of education modernization. As private Universities with self-financing funds and self-financing, most schools are short of funds for running schools. The limited funds are basically used to maintain the daily operation of teaching and personnel expenses, and the investment in education Information is limited. Based on this, the gap between the development level of education Information in private Universities in Guangxi and the whole country is larger, and it is necessary to increase investment and accelerate development.

The leadership of school administrators Information is the key factor to promote the Information of education.

In recent years, China has made remarkable progress in the construction of the basic environment for educational Information, the development and application of educational and teaching resources, etc. The "Education Information 2.0 Action Plan" points out that China's educational Information has transformed from integrated application to innovative development. To realize the innovative development of

educational Information, the core factor is people, the Information leadership of administrators who have the power to control school Information construction resources and the top-level decision-making power. In 2011, the Ministry of Education of China promulgated the "National Ten-Year Development Plan for Educational Information (2011-2020)", which clearly proposed to vigorously enhance the leadership of educational Information and required the establishment of regular training for educational administrative departments, professional institutions and school administrators. system, carry out education technical ability training and education information leadership training for administrators, improve information planning ability, management ability and execution ability, gradually establish work norms and evaluation standards, and include administrators' information leadership in the assessment content. By 2020, administrators of all levels and types will meet the corresponding standards for educational technology ability. The information-based leadership of school administrators has become a necessary assessment content, which is conducive to promoting the school's emphasis on the training of administrators' information-based leadership, and increasing investment in training to further enhance administrators' information-based leadership.

Research Question

1. What is the current situation of development of Information Leadership of Mid-Level Administrators in Private Universities in Guangxi?

2. What should be the model for development of Information Leadership of Mid-Level Administrators in Private Universities in Guangxi?

3. Is the model for development of Information Leadership of Mid-Level Administrators in Private Universities in Guangxi adaptability and feasibility.

Research Objectives

1. To study the current situation of development of Information Leadership of Mid-Level Administrators in Private Universities in Guangxi.

2. To develop the model for development of Information Leadership of Mid-Level Administrators in Private Universities in Guangxi.

3. To evaluate the adaptability and feasibility of the model for development of Information Leadership of Mid-Level Administrators in Private Universities in Guangxi.

Scope of the Research

1. Population and the Sample Group

1.1 Population

This study selects 11 private universities in Guangxi as the research group. The administrators of this research refer to: Mid-Level Administrators other than school-level leaders, including the heads of departments, management agencies and other branches, such as the dean of the college, the secretary of the college, the director of the president's office, the director of the party committee office, the personnel department Director, Director of Propaganda Department, Director of Academic Affairs Office, Dean of Graduate School, General Manager of Logistics Group, Director of Libraries, etc. and the group has a total of 735 people;

1.2 The Sample Group

735 populations, according to the Krejcie and Morgan sampling table, 254 samples need to be sampled.

Firstly, stratified sampling was used.

Secondly, random sampling method was used to select samples from each university according to the corresponding proportion, with a total of 254 people from 11 universities.

Research Variables

Through extensive literature research, this study summarizes the discussions and viewpoints of scholars such as Harold Kontz (1955), Joseph Rost (1993), Zheng Luhong (2020, p55), Zhao Leilei (2017, p19), and Zhu Zhiting (2022, p41) on leadership, information technology leadership, and other theories, and identifies four variables for this study: 1) information technology ability, 2) information planning ability, 3) information management ability, and 4) information evaluation ability.

Definition of Terms

1.Information leadership

information leadership means the ability of individuals, teams or organizations to influence and lead followers and stakeholders to implement organizational change and achieve common goals through information technology.

2.Information technology ability

Information technology ability means the ability of information acquisition, information processing, information integration, information exchange, information research, to learn and update information technology, to achieve the work.

3.Information planning ability

Information planning ability refers to the ability to promote the realization of strategic objectives through long-term consideration by accurately grasping the policy analysis, scientific plan, planning organization, planning guidance, planning thinking, long-term planning, technology development trend, etc. of information construction.

4.Information management ability

Information management ability means the ability to organize and promote teachers' information teaching, information training, optimize information learning environment, build rules and regulations for information development, and promote information management, to develop information incentive mechanism, to organize information assessment.

5.Information evaluation ability

Information evaluation ability refers to the ability of information status research, problem analysis, evaluation mechanism formulation, bottleneck judgment, trend prediction, strategy adjustment, benefit evaluation, etc

6.Private colleges and universities

Private colleges and universities means that enterprises and institutions, social organizations, other social organizations and individuals use non-state financial funds to carry out higher education for academic qualifications and higher non academic education within the society in strict accordance with the standards for the establishment of colleges and universities stipulated by the state and the local education departments.

7.Mid-level Administrators

Mid-level Administrators mean the administrators other than school level leaders, including heads of departments, management organizations and other branches, such as college presidents, college secretaries, president office directors, party committee office directors, personnel department directors, publicity department directors, academic affairs department directors, graduate school presidents, logistics group general managers, library curators, etc.

Research Framework

| 1. Information technology ability
2. Information planning ability
3. Information management ability
4. Information evaluation ability | ⇒ | The Model for Development of information Leadership of Mid-Level Administrators Private Universities in Guangxi |
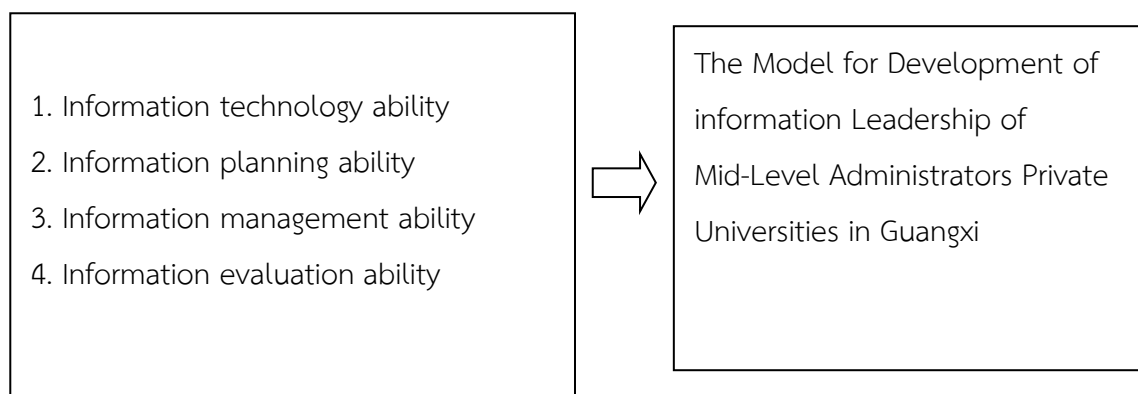
Figure 1.1 Research Framework

Chapter 2

Literature Review

Based on the research needs of the information leadership of Mid-Level Administrators in Private Universities in Guangxi, this study searched Chinese and foreign literature on relevant theories, concepts, and connotation elements such as leadership, information leadership, etc.

This chapter will review the following aspects:

1. Concept of education administrators

2. Concept of leadership

3. Concept of information leadership

4. Concept of private universities

5. Related research

Concept of education administration

Peter Drucker: Educational administration is the process of utilizing human and material resources to achieve organizational goals for the ultimate purpose of educational institutions - the growth of students and the improvement of educational quality. It requires discovering and improving the way schools operate. (1998) New Challenges in Education Management

Wu Zejun: Education administration refers to the effective operation of education through a series of activities such as goal setting, organizational leadership, resource allocation, personnel management, and control evaluation, in order to better achieve educational goals, mobilize various resources, and coordinate various forces. (2006) "New Concepts and New Thinking in Education Management"

Zhang Zhiyong: Education administration refers to the planned arrangement of educational and human resources, effective organization and leadership, and strengthening of coordination and cooperation among various links within the school to promote the smooth progress of education at all levels and in all aspects within the school, so as to enable the school to achieve the prescribed goals. (2010) Education Management Research

Wang Mingxia: Education administration refers to the use of administrative management principles and methods by Administrators of educational institutions to mobilize resources from all aspects, organize various tasks, and improve the organizational efficiency and education quality of educational institutions through a series of activities such as goal setting, personnel and post allocation, rules and regulations formulation, financial management, control, and evaluation. (2007) Introduction to Education Management

Yan Jingmin: Education administration refers to the process of implementing management and services for education to achieve various goals and tasks, and promoting the coordination and utilization of internal and external resources in education. (2013)." The Global Perspective of Education Management and China's Practice"

Jiang Qitang: Educational administration is a management activity that aims to achieve educational goals, using various management methods, standardizing educational organizational structures, improving management levels, improving management systems, and scientifically using management methods to achieve the goals of rational school governance, optimizing education, and innovating campus culture. (2016). Research on Modern Education Administrators

In summary, this study believes that education administration refers to a series of activities that fully utilize, allocate, optimize, and integrate various educational resources in order to achieve educational goals.

Concept of leadership

Harold Kontz(1955) : "Leadership is an influence, and leadership is a process of influence, an art or process that influences people's willingness and enthusiasm to strive for organizational goals

Joseph Rost (1993) : "Leadership is a relationship of influence between leaders and leaders who intend to achieve substantial changes to reflect their mutual goals.".

Peter F.Drucker(1996) : "Leadership is the ability to grasp an organization's mission and mobilize people to strive around it.".

In summary, this study believes that: Leadership means the ability of a leader

to attract and influence the led and stakeholders in a specific situation and to continuously achieve the goals of the group or organization.

Concept of information leadership

Aten (2020) defines educational information leadership as: leaders use various knowledge such as information technology to predict the future development trend of science and technology through personal relationships and effective integration in order to support effective teaching practices.

Wang Youmei (China Education information, 2007, p18-20) pointed out that leadership in education information is a process in which individuals use their information literacy and abilities to promote teams to achieve the goals of education information.

Jiang Zhihui (Modern Education Technology, 2011, p30-33) pointed out that information leadership is the influence and decision-making power of school administrative leaders on the development of education information.

Xie Zhongxin (Modern Education Technology, 2009, p73-77) proposed that principals' information based leadership refers to the ability set to help principals achieve multiple goals such as information based curriculum teaching and information based management, including: using information technology to support education. Ability in decision-making, teaching applications, management services, and monitoring and evaluation.

Zhang Hong(2017,19) pointed out that information leadership of university leaders is the ability of university leaders to influence and lead university teachers, students, employees, and stakeholders through information technology, implement organizational change in universities, and achieve organizational change in universities.

Zheng Luhong (2020, 55): School information leadership can be summarized as the ability of the school management group to comprehensively influence, guide, and effectively promote the information construction of all teachers and students in the school and continuously achieve the goal of school information development

In summary, this study believes that: information leadership means the ability of individuals, teams or organizations to influence and lead followers and

stakeholders to implement organizational change and achieve common goals through information technology. The information leadership of university leaders is the ability of university leaders to influence and guide teachers, students, staff and stakeholders, implement organizational reform of universities and achieve the development goals of universities through information technology as the intermediary.

information leadership includes: information technology ability, information planning ability, information management ability, and information evaluation ability.

Concept of information technology ability

Diao Shu. (2016,p23): information application ability refers to the comprehensive application of information technology and business capabilities by leaders at all levels to improve their business capabilities, emphasizing the integration of information technology and business capabilities, and emphasizing the ability of leading cadres to make decisions, provide information services, and improve their modern governance capabilities. It is a way for leaders at all levels to optimize their decision-making content, improve their modern governance capabilities Innovation in the supply model of public services is an inevitable requirement and important support.

Li Jiyan. (2017, p64): Information technology ability include information acquisition, information processing, information management, information integration, information exchange, and information research.

Zhao Leilei. (2017, p21). : Information technology ability include the principal's ability to perceive, apply, and reflect on technological methods. In terms of technical capabilities, principals need to understand the efficacy and value of technical methods (including traditional and digital technologies), such as the value of information management platform technology, multimedia teaching technology, home school communication platform technology, and other technologies, and need to try to apply technology. In the process of educational leadership, timely reflect on the application details of technology. Principals' information technology ability are reflected in their understanding, operation, and reflection on information technology.

In the article "Discussion on Information Technology Education Competence

in Higher Education", Hong Jiating believes that information technology skills should have comprehensive abilities such as "rapid adaptation to new technologies, problem-solving skills, electronic collaboration and communication skills, and production information skills." (2005). Discussion on the Educational Ability of Information Technology in Higher Education [J] Higher Education Research, 1, 020

Wang Dianye and Liu He argued in their article "The Transformation of Talent Cultivation Mode: The Cultivation of Information technology ability Led by Information Literacy" that information technology ability include multiple capabilities such as information acquisition and processing, information transmission and presentation, network communication, and user experience. (2013). Modern Distance Education, (49-55.)

In "Cultivation and Evaluation of Information Technology Competence", Fan Huaning believes that information technology ability should include multiple abilities such as technology application skills, problem-solving skills, information acquisition skills, communication skills, and security and prevention knowledge. (2013). Training and Evaluation of Information Technology Competence [J]

In summary, this study believes that: Information technology ability means the ability of information acquisition, information processing, information integration, information exchange, information research, to learn and update information technology, to achieve the work.

Concept of information planning ability

Diao Shu.(2016, p23): Strategic planning ability is the ability of leading cadres to grasp and base themselves on long-term goals and strategies such as departmental business development, urban construction management, and economic and social development. In the long run, whether information can be used to promote the realization of strategic goals is a key link and step for leading cadres to transform their information thinking from an abstract consciousness level to a specific practical level.

Zhao Leilei. (2017, p.21): In terms of information planning ability, it is mainly reflected in the formulation of information development plans, the integration of information technology and subject teaching, and teacher information technology

training and training plans. Four aspects: application ability, information rules and regulations system.

Zhang Hong. (2017, p.29). believes that information planning ability refers to the system planning ability, planning ability, and planning formulation ability based on the goal of information construction.

Xiong Huaxia. (2021, p.102). believes that information planning ability include four sub elements: vision blueprint, strengths and weaknesses analysis, rules and regulations, and information brand creation.

Yang Hongsheng: Information planning ability refers to the ability of individuals or organizations to accurately grasp information needs and effectively collect, screen, process, apply, and evaluate information in an environment of information explosion. (2010), "Information Literacy Education: Theory and Practice"

Sun Houyun: Information planning ability refers to the ability of individuals or organizations to systematically analyze, evaluate, plan, integrate, and manage information resources in an information based environment. (2005), "Theory and Practice of Organizational Information Resource Management in the Context of information"

Xu Huimin: Information planning ability refers to the ability of individuals or organizations to respond to the increasing demand for information resources and information, effectively analyze and make decisions based on systematic principles, and achieve effective information utilization and value creation. (2011), "Information literacy and its impact on talent cultivation in universities"

Song Zhangbin: Information planning ability refers to the ability to effectively plan data collection, processing, and utilization, online and offline, and IT technology applications to achieve accurate acquisition and utilization of information in a complex information environment by focusing on the information needs of the job. (2018), "Research on Improving Information Technology Integrated Management ability"

In summary, this study believes that: Information planning ability refers to the ability to promote the realization of strategic objectives through long-term consideration by accurately grasping the policy analysis, scientific plan, planning

organization, planning guidance, planning thinking, long-term planning, technology development trend, etc. of information construction.

Concept of information management ability

Zhao Leilei. (Modern Distance Education, 2017, p.21): In terms of information management ability, it is mainly reflected in promoting teacher information based teaching, organizing teacher information based training, optimizing the information based learning environment, and information based construction.   Zhang Jianhong, (2018, p.66). Information management ability refers to the ability of school administrators to creatively solve problems in the process of school development and reform. It is indispensable for the orderly operation of school education and the promotion of competitiveness.

Zhang Hong. (2017, p.29). Information management ability refers to interpersonal communication ability, information communication and coordination ability, and the ability to achieve a vision in an information based environment.

Xiao Yan. (2013). Information Management and Service. Beijing: Higher Education Press. It is believed that information management ability refers to the ability to effectively collect, organize, process, store, transmit, and utilize information resources.

Ren Fangfang. (2014). Modern Information Management. Beijing: China Metrology Press. It is believed that information management ability refers to the ability to effectively identify, obtain, filter, organize, summarize, and process information resources.

Jiang Weidong. (2016). Introduction to Information Literacy. Shanghai: Shanghai Jiaotong University Press. It is believed that information management ability refers to the ability to effectively acquire, process, store, and organize information resources in order to achieve rapid analysis, utilization, and application of information.

Wang Hui. (2017). "Information Literacy Curriculum Textbook for the Information Age.". Beijing: People's Education Press. It is believed that information management ability refers to the ability to effectively integrate, process, analyze, and promote information resources to achieve effective utilization and management of information.

In summary, this study believes that: Information management ability means the ability to organize and promote teachers' information teaching, information training, optimize information learning environment, build rules and regulations for information development, and promote information management, to develop information incentive mechanism, to organize information assessment.

Concept of information evaluation ability

Sun Zhengxiang(2013,72):Information evaluation ability refers to the value judgment of information development planning, rules and regulations for promoting information technology, information resource utilization, information teaching and learning applications.

Zhao Xiumei. (2002). "Research on the Impact of Information Literacy on College Teaching and Its Realization Approaches.". Beijing: Tsinghua University Press. The ability to evaluate information refers to the ability to understand, analyze, evaluate, and judge the information obtained.

Pan Yuefeng, Han Nuan, and Hu Baosheng. (2012). "Growing from Crisis: Exploring the Information Literacy Training Model in Colleges and Universities.". Wuhan: Wuhan University Press. The ability to evaluate information refers to the ability to effectively identify, screen, analyze, evaluate, and apply information.

Ma Yuying and Niu Lihao. (2015). "National Information Literacy: Training and Evaluation of Student Literacy.". Beijing: Higher Education Press. It is believed that information evaluation ability refers to the ability to effectively, systematically, and objectively evaluate, judge, and apply the obtained information.

Li Yinshao. (2018). "Design and Practice of Information Literacy Education Courses in Colleges and Universities". Beijing: Peking University Press. It is believed that information evaluation ability refers to the ability to conduct in-depth analysis, multi-angle evaluation, comprehensive judgment, and effective application of acquired information.

Huang Hongsheng. (2009). "Information Literacy and the Road to Discipline Innovation.". Beijing: China Education Press. It is believed that information evaluation ability is an important component of information literacy and plays an important role in promoting subject knowledge innovation and lifelong learning.

Shao Baoyu, Xie Qinghua, Ji Xinbang. (2009). "Research and Application of Evaluation Methods for Information Literacy Level of College Students". Beijing: Tsinghua University Education Research Press. For the first time, information evaluation ability is proposed as a key indicator to evaluate the level of information literacy of college students.

Yang Xue. (2012). "Practical Research on Information Assessment Ability in High School English Teaching." Beijing: Central China Normal University Press. This paper discusses the application and practice of information assessment ability in English teaching.

Wang Weiguo, Xie Mingxun. (2015) "Information Literacy Evaluation System and Teaching Research in the Network Era.". Beijing: Higher Education Press. This paper analyzes the importance of information evaluation ability to the information literacy evaluation system, and gives corresponding teaching research suggestions.

Guo Meng. (2017). "Evaluation of Information Technology Competence, Information Literacy, and Information Literacy." Beijing: Central Compilation and Translation Publishing House. This paper discusses in detail the connotation, constituent elements, and evaluation indicators of information evaluation ability, providing a reference for universities to carry out information literacy evaluation.

In summary, this study believes that: Information evaluation ability refers to the ability of information status research, problem analysis, evaluation mechanism formulation, bottleneck judgment, trend prediction, strategy adjustment, benefit evaluation, etc

Concept of private universities

Liu Jianfei. (2001). "Load Reduction and Transformation of Higher Education in China". Shanghai: Shanghai Education Press. It is believed that private colleges and universities refer to higher education institutions that are independently run by non-governmental units, established in accordance with the law, and mainly focus on undergraduate and specialized education.

Yang Fang. (2010). "The Development of Non public Higher Education in China from the Perspective of Political Economy.". Chinese Higher Education Research, (2), 6-12. It is believed that private colleges and universities refer to non public owned

higher education institutions, whose owners can be enterprises, individuals, or other non-governmental organizations.

Liu Jigang, Luo Qiping, and Wang Jingjing. (2015). Analysis of Public Policy and Governance in Higher Education. Beijing: China Social Science Press. It is believed that private universities refer to higher education institutions registered in accordance with the law and regulations for profit or non-profit purposes, which are different from public universities and institutions of higher learning.

Yang Chunxia, Zhu Zixiang, and Wei Yunxiao. (2018). "Research Report on the Modernization of Higher Education in China: The Modernization and Development of Non public Universities". Beijing: Higher Education Press. It is believed that private colleges and universities refer to higher education institutions operated by non-state capital and dominated by undergraduate education. Their business nature and ownership structure are different from those of public colleges and institutions.

Related research

Wang Yuzhen. (2014,57). "Research on information Leadership Construction in Private Universities". Heilongjiang Higher Education Research. It is believed that the information leadership of management personnel in private universities refers to the ability and skills to effectively promote the information and modern management of schools through the organic combination of information technology and management strategies in the information environment.

Xu Xiaoyun, Qin Zhenzhen, Sun Xiaoying. (2015,24), "On the Construction of information Leadership Appraisal System in Private Colleges and Universities". Research and Development of Educational Equipment. It is believed that the evaluation system for the information leadership of management personnel in private colleges and universities includes four aspects of capabilities, namely, information technology ability, information resource integration capabilities, information awareness, and information strategy formulation capabilities.

Zhang Ying. (2018,112). "Research on the Path of information Leadership Improvement in Private Universities". Exploration of Higher Education. The author believes that the path to enhance the information leadership of Administrators in

private colleges and universities includes: adhering to people-oriented, strengthening theoretical research on leadership, strengthening leadership training and education, and improving the leadership evaluation mechanism.

Zhang Xiaomin, Li Ling, Chen Zhiyong. (2021,66)." Theoretical Interpretation, Indicator System, and Improvement Strategy Research on information Leadership in Private Colleges and Universities." Research on Audiovisual Education. Propose a theoretical explanation of the information leadership of Administrators in private colleges and universities, and construct a corresponding indicator system, and then propose strategies to improve information leadership.

Shi Peihua and others believe that the information leadership of university administrators can be measured through three levels of indicators, namely, the formulation and implementation of information strategies, the integration and utilization of information resources, innovation ability, and teamwork. (Research on Higher Engineering Education, 2013, Issue 3)

Through questionnaire survey and empirical analysis, Li Nuowei and Gao Pan believe that the information leadership of university department management teams is influenced by factors such as leadership commitment, values, knowledge level, and technology application. Optimization strategies mainly include improving the technical application level and professionalism of leaders, strengthening team cooperation and knowledge sharing. (Education and Teaching Forum, Volume 48, Issue 5, 2019)

Luo Jiaxiong and Liu Yang proposed an indicator system for evaluating information leadership, including five dimensions: information mission awareness, information organization awareness, information technology awareness, information application awareness, and information evaluation awareness, and constructed an evaluation model. (Library and Information Knowledge, 2010, Issue 3)

Through literature review, experts and scholars' descriptions of information leadership elements are summarized in the following table:

Table 2.1 Description of the Elements of Information Leadership by Experts and Scholars

scholar \ Ability	Information Technology ability (Information Literacy)	Information planning skills (decision-making)	Information management ability	Information evaluation ability	Information leadership ability	Information Transformation ability
Zhu Zhiting		√	√		√	
Gu Xiaoqing		√	√	√		
Zhang Hong	√			√		√
Zhao Xiaowei	√	√	√	√		
Ng			√		√	
Yee	√	√				
Zhang Hong	√	√		√		
Dong Tongqiang	√	√	√			
Zhao Leilei	√	√	√	√		
United States: National Educational Technology Standards for administrators	√	√			√	
United Kingdom: National Principals Standards	√	√			√	
China: "Code for Digital Campus Construction of Vocational Colleges"	√		√	√		
Frequency	9	9	7	6	4	1

Based on the analysis of the frequency of the components of information leadership by experts in the above table, the four variables of this study are selected as those with a frequency of more than 6 times:

1. Information technology ability

2. Information planning ability

3. Information management ability

4. Information evaluation ability

Basic Theory

1. Modern Educational Leadership Theory

Along with the evolution and perfection of leadership science, modern educational leadership theory also conforms to the trend of the times, constantly reforms and innovates and achieves great development. This paper is based on the distributed leadership theory and the transformational leadership theory in the modern education theory, which is mainly based on the information leadership of the middle management team of the school. Distributed leadership theory believes that leadership does not occur at the level of an individual or a small group of people, but at the level of the entire organization. If we want to make a reasonable analysis of leadership practice units, we cannot focus on just one person or at the leadership level. of a few people, leadership is dynamically distributed and it should be embedded in the entire school organization. Distributed leadership leadership theory has three important components: (1) leadership practice is the center and pillar of leadership; (2) leadership practice is generated by the interaction of all constituent members with the leadership environment; (3) context defines leadership practice, leadership context It is an important part of leadership practice, interacting with leaders and being led, and adding time elements to form leadership practice. [47] Distributed leadership emphasizes encouraging subordinates to actively participate in the school leadership process, reflecting the model of the entire collective leadership. All faculty and staff work together to foster professional knowledge development, so even lower-level staff take on leadership roles.

Transformational leadership theory pays more attention to arousing the greatest enthusiasm and potential of employees, and believes that when employees are

motivated and inspired, they will show higher enthusiasm, be willing to make more efforts, and be full of loyalty, trust and respect for leaders. Form a positive influence on subordinates through positive motivation, spiritual inspiration, wisdom stimulation and humanized care, so as to enhance the enthusiasm and consciousness of subordinates to achieve work goals, and ultimately achieve performance beyond expectations.

2. Learning Organization Theory

The learning organization theory first came from the West, and it expanded from the system dynamics theory of industrial enterprise management. Learning organizations focus on the combination of shared systems and learn from each other in an open and inclusive attitude. It is a collective organization and management model that is more suitable for the needs of social development. It is different from the general organizational model and has its own outstanding characteristics. First, learning organizations pay more attention to openness, democracy, inclusiveness, collaboration and solidarity. The core content is to establish a more scientific open learning and multiple feedback system to create a cultural atmosphere of interaction, equality, sharing and collaboration for organizational members; members They share a common vision, and at the same time have the internal learning motivation to realize the vision, the learning content is diversified, and the learning method is modernized; the management structure tends to be flat, emphasizing the formation of an equal and mutual partnership between leaders and members, so that the whole organization Full of creativity and innovation. Second, the learning organization is also an idea and belief, it is not a static form, and it focuses on the resourcefulness of intelligence. Organizations should have the concept and mechanism of lifelong learning, take continuous professional development and learning as its basic feature, lead the mutual aid learning and full learning of organizational members, and maximize the motivation of each member. Third, learning organizations emphasize the unity of innovative learning and experiential learning. The core content of the organization is learning and innovation. Systematic thinking is an important feature of a learning organization. "Learning" is not only about accepting experience and accumulating knowledge, but more importantly, it is about transcending oneself, constantly innovating and constructing, so that members

can work in the workplace. Continuous reflection in order to find new ways to solve problems.

At present, the learning organization theory has been widely used in the management of industrial enterprises in Europe and the United States, and has been widely used in public management and institutions. It has become one of the more advanced management theories in the world today, and is an extremely competitive The modern enterprise and public utility management model.

3.Social Exchange Theory

Social exchange theory is a sociological theory founded by American sociologist G. Homans and later revised and developed by P. Blau and others. Because it pays attention to the psychological factors existing in human actions, it is also known as the theory of social psychology of activism. The basic idea of this theory is that (part of) human behavior is an exchange, and humans exchange behavior with others in order to obtain some (tangible or intangible) reward. G·Homans' theory of social exchange is called "behavior-exchangeism", which mainly focuses on social exchange at the level of individual behavior in the microstructure, while P·Blau's theory is called "structure-exchangeism", which Extend exchange theory from microstructure to macrostructure, focusing on the study of social exchange behavior in complex social situations.

The basic idea of this theory is that a person's (partial) action is an exchange of action by a person in exchange for a specific (tangible or intangible) reward. G. Homans' theory of social exchange is known as "action-exchange theory", which takes individual actions as the focus of social communication in microstructure, and P. Blau's theory is known as "structural exchange theory", which transforms exchange theory from microstructure Expanding to macroscopic structures, the focus is on the study of social exchange actions in complex social situations.

The content of social exchange

From the perspective of exchange subject and object, Professor Homans defines social exchange as an interpersonal exchange based on resources and rewards, that is, interpersonal interaction is an exchange behavior that includes rewards, resources, emotions and other contents. Blau believes that Homans' social

exchange is only applicable to the face-to-face interaction of members within a small group, which is different from the exchange of complex social groups. Therefore, Professor Blau believes that social exchange is a behavior that occurs when others respond in return, and stops otherwise. It is the relationship between individuals and groups, power differentiation and partner groups, and confrontation. The basis of conflict and cooperation, indirect links and dependencies among community members, etc.

Therefore, Prof. Blau pointed out that social exchange is a kind of action that occurs in response to a situation in which others reciprocate. On the contrary, there is also a relationship between groups, relationships between status-differentiated individuals, conflicts and cooperation between opposing relationships, and communities. Disputes and cooperation among members, indirect links and the basis of interdependence.

Six propositions of social exchange

The six propositions of social exchange theory were put forward by Professor Homans, including: the success proposition, that is, among all the actions of an individual, if a particular action is often rewarded, then the individual will tend to repeat such an action; the stimulus proposition, that is If an individual is rewarded for actions against a single or a group of stimuli, then the individual will act on such stimuli in a targeted manner; the value proposition, that is, assuming that the result of an action is more valuable to the individual, then Individuals will tend to repeat such actions; the deprivation-satisfaction proposition, that an individual often receives a particular reward, the less valuable future equal rewards are to him; the aggression-approval proposition, that if the individual acts without the expected reward or even Being punished, the individual will have negative emotions and the possibility of taking aggressive behaviors will increase, on the contrary, individuals will have positive emotions and make approval behaviors; rational proposition, that is, when faced with various action plans, individuals will always choose the most valuable and Action with the highest success rate.

The process of social exchange

Social exchanges exist not only in face-to-face interactions among members

of small groups, but also in complex social groups. Therefore, Professor Blau analyzed the exchange behavior in the macro and micro social structure and concluded the basic process of social exchange of "social attraction competition differentiation integration resistance".

The premise of social exchange is social attraction, and social attraction is the condition that promotes social exchange. The tendency of individuals to interact with other subjects due to some primitive factors is social attraction. Individuals expect to interact with other subjects and get (internal or external) rewards, then the two parties need to attract each other, so that the two parties can establish their stable connection, and form a certain social group.

In social exchange, each exchange party tries its best to show its remuneration ability, so as to attract other subjects to reach an exchange. Since the resources owned by each exchange subject are unevenly distributed in quantity, quality, type, and rarity, in order to achieve a naive society In exchange, it is necessary to actively show attractiveness to the other party, thus resulting in social competition. In this process, subjects with abundant resources or high resource scarcity can freely choose exchange objects and forms, while the choice of members at lower exchange levels is also reduced accordingly. When two parties with large differences in exchange levels exchange memory in society, an exchange relationship of unbalanced status occurs, and the phenomenon of power differentiation occurs in the group.

If the dominant subject uses power fairly and is recognized by the subordinate subject, the power is legitimized, the members of the group perform their duties and get corresponding rewards, which reduces the friction and cost of competition, and is conducive to promoting The integration of the group; on the contrary, the implementation of power makes members feel deprived, which will gradually disintegrate the contractual trust among members. It is the members that generate countervailing power, denying the legitimacy of existing power, and promoting resistance and division.

4.Social Learning Theory

The social learning theory was put forward by the American psychologist

Albert Bandura, emphasizing that human behavior is the product of the interaction between the individual and the environment, focusing on the role of observation, learning and self-adjustment in individual behavior, and paying attention to human behavior and the environment interaction between. This theory is mainly composed of three parts: interactive determination theory, observational learning theory and self-efficacy theory.

Professor Bandura proposed that in the interactive decision theory, the behavioral factor (B) in the process of social learning is a by-product of the interaction between individual cognitive variables (P) and environmental variables (E), namely B: f(P*E); observation The learner theory emphasizes that human behavior can be obtained not only through classical conditioning and operant conditioning, but also through general activities in daily life. In short, it is an action mode in which individuals can observe and imitate social behavior; Effectiveness theory mainly states the definition of its own effectiveness and its subject. Self-efficacy is a composite structure that suggests actions that are information, judgments, self-understanding, and feelings prior to the completion of an individual's activities, often expressed as self-efficacy, self-efficacy beliefs, or expectations of self-efficacy.

Moreover, social learning theory argues that there are three mechanisms by which individuals learn to act. That is, the connection mechanism sees learning as a stimulus-response chain reaction. This theory emphasizes the role of various associations such as the relationship between situation and action, the relationship between actions, the connection between perceptions, the connection between emotions, etc. The reinforcement mechanism believes that learning a specific action is positive reinforcement. The opposite is negative; the observational learning mechanism believes that by observing others and imitating role models, learners can learn certain social attitudes and behaviors, and carry out other external reinforcements.

5.Distributed Leadership Theory

In the middle and late 1990s, the development of school education was faced with various challenges and changes. Under this background, a new leadership theory, Distributed Leadership, was applied. The research on this theory has been

studied by many scholars. Among them, the more important representatives are Lakomsk, G., Harris, A. > Spillane. This theory breaks through the previous one-way, static and linear leadership concepts, and turns to a multi-directional, dynamic and fluid perspective to rebuild the school. Leadership, the core of the concept of distributed leadership is that leadership is not owned by one person, but a function that all members of the organization may perform. Leadership is not fixed, but fluid, with generation and change. (emergent)« Lakomsk, G. believes: "Distributed leadership should pay more attention to leadership and its own influence in a structured organization, which is a common combination of environment and form" (7). Harris, A. believes: "Distributed leadership is an activity that occurs at the level of the organization rather than the level of individuals or small groups" [% Spillane (James P. Spillane) believes that "leadership is a process of interaction between leaders, situations and subordinates"

Leadership is made up of leaders, subordinates, and situations; leadership changes dynamically over time. Leadership researcher Harris (A. Harris) proposes that distributed leadership is realized based on each organization based on Spillan's related theories. It breaks the traditional individual leadership theory and believes that the main body of leadership is no longer It is a minority of leaders with administrative leadership positions, but people who are distributed at the school level. As can be seen from the research of Spiran, Harris and others, distributed leadership has been widely recognized as leadership is not a single item We must pay attention to the interaction with the Information team in the process of leadership behavior, and the leaders of the school must be able to jointly build an Information management mechanism to ensure the normal operation of the school development. On the basis of summarizing previous research results, Brad and Osborne put forward the main advantages of distributed leadership application in the development and transformation of school Information, they believe that "distributed leadership makes organizational members more willing to jointly formulate organizational development vision In the process of school Information development, the principal, management team, and teachers are all in an inseparable system. They play different roles but are not independent individuals,

and they affect each other. Supported by the distributed leadership theory of Harris et al., we divide school Information leadership into three levels of leadership, namely principal leadership, management team leadership, and teacher leadership. They influence and restrain each other, and jointly lead the development and reform of school Information.

6.Flat management mode

The flat management model was first applied to enterprise management. The proposal of this management model was based on the theoretical basis of the pyramid management model. The initial pyramid management model focused on the hierarchical management process and the gradual reduction of rights. A model, the pyramid-style management model has many shortcomings, such as the opacity of rights caused by the clear hierarchy, and the people at the top of the pyramid tend to have arbitrary behaviors, resulting in less communication between the ranks. With the rapid development and change of modern science and technology, the concept of educational Information has been continuously penetrated into primary and secondary education. The pyramid-style management model is no longer suitable for the development of school education. Constant changes are required to adapt to social development, and the flat management model is proposed in this context.

The flat management mode is also called the flat management mode. The flat management mode appeared in the early 1990s and is a mode intended to simplify the organizational structure and flatten the hierarchical management. It is the school management work that needs to reduce the management level, improve the management ability of the entire team of Mid-Level Administrators in a flat management mode, and effectively adjust the administrators' individual functions to make decisions and share leadership. The characteristics of a flat management model can better meet the needs of modern schools, and the continuous reduction of management levels can ensure smooth communication between superiors and subordinates, reduce communication obstacles, and form a campus of mutual learning, coordination and cooperation in the development of the information age. culture, the purpose of promoting the development of school education.

Chapter 3

Research Methodology

In order to achieve the research objectives:

1. To study the current situation of development of Information Leadership of Mid-Level Administrators in Private Universities in Guangxi.

2. To develop the model for development of Information Leadership of Mid-Level Administrators in Private Universities in Guangxi.

3. To assess the adaptability and feasibility of the model for development of Information Leadership of Mid-Level Administrators in Private Universities in Guangxi.

Researchers have the following procedures:

1. Research population/Sample

2. Research Instruments

3. Data Collection

4. Data Analysis

The Population and Sample

Population

The object of this study is 735 Mid-Level Administrators from 11 private universities in Guangxi, involving universities in cities such as Nanning, Liuzhou, Guilin, Beihai, and Chongzuo. The Mid-Level Administrators referred to in this study include the dean and deputy dean of each college, the director and deputy director of each department, and other personnel.

Table 3.1 Sampling distribution Source: Homemade by researchers

No	University	City	population	Sample Group
1	Nanning University	Nanning	75	25
2	Guangxi University of Foreign Languges	Nanning	63	22
3	Guangxi City Vocational University	Chongzuo	72	24

Table 3.1 (continued)

No	University	City	population	Sample Group
4	Xiangsihu College of Guangxi University for Nationalities	Nanning	65	23
5	Faculty of Chinese Medicine Science Guangxi University of Chinese Medicine	Nanning	68	23
6	Liuzhou Institute of Technology	Liuzhou	73	24
7	Guilin Institute of Information Technology	Guilin	62	22
8	Guilin University	Guilin	70	24
9	Nanning College of Technology	Nanning	74	24
10	Beihai University of Ard Design	Beihai	58	22
11	Shiyuan Colege of Nanning Normal University	Nanning	55	21
	total		735	254

The interview object

Interviews were conducted with Mid-Level Administrators from 11 private universities in Guangxi, with 1 person from each school, a total of 11 people. Qualifications required for interviewees: Mid-Level Administrators personnel with more than 5 years of university work experience, master's degree or above.

Evaluation Team

This study invites 5 experts to form an evaluation team, consisting of Mid-Level Administrators personnel from private universities in Guangxi with over 10 years of university work experience, master's degree or above, and associate professor or above titles.

Research Methods and Steps

This study comprehensively utilizes multiple methods such as literature research, questionnaire survey, interview, and expert evaluation, combining

qualitative and quantitative research, and using multiple data collection and statistical analysis methods to collect, analyze, and statistically analyze relevant data. Analyze and understand the current situation of information leadership of Mid-Level Administrators in Guangxi private colleges and universities, propose a development model for information leadership of Mid-Level Administrators in Guangxi private colleges and universities, and finally invite experts to evaluate the applicability of the development model for information leadership of Mid-Level Administrators in Guangxi private colleges and universities.

This study is divided into four steps:

Step 1: Set research ideas

Read relevant reference materials, determine the topic based on your interests and research direction, be familiar with the relevant theories and concepts of leadership, information technology, education information technology, information technology leadership, and information technology leadership for middle level Administrators, clarify the research purpose, and determine research ideas.

Step 2: Prepare a questionnaire, compare the reliability and validity of the data through factor analysis on the four variables of the questionnaire, determine the applicability of the questionnaire, and conduct a questionnaire survey to investigate and understand the current situation of information leadership of Mid-Level Administrators in private universities in Guangxi.

Step 3: Propose an information based leadership development model for Mid-Level Administrators in private universities in Guangxi through expert interviews.

Based on the current situation of information leadership of Mid-Level Administrators in Guangxi private universities and the analysis of various components of information leadership of Mid-Level Administrators in Guangxi private universities, through expert interviews, explore training methods and paths to improve information leadership of Mid-Level Administrators in Guangxi private universities, and propose a development model for information leadership of Mid-Level Administrators in Guangxi private universities.

Step 4: Evaluate the applicability of the model

Invite experts to evaluate the applicability of the information leadership

development model for Mid-Level Administrators in private universities in Guangxi.

Brief table of research steps:

| Step 1: Read relevant references, understand relevant theories, concepts, and set research ideas. | Step 2: prepare a questionnaire and conduct a questionnaire survey to understand the current situation of the Information leadership of mid-level administrators in private universities in Guangxi. |
| Step3: Through expert interviews, this article proposes a development model for the Information leadership of mid-level administrators in private universities in Guangxi. | Step 4: Evaluate the applicability and feasibility of the Information leadership model for mid-level administrators in Guangxi private Universities by inviting experts for evaluation. |

Figure 3.1 Summary of research steps

Research Instruments

Research Instruments

1. The tools used in this study include a questionnaire, an interview form, and a model suitability evaluation form.

Design Research Instruments

Design a questionnaire, which is divided into two parts, as follows:

2. Part I: Personal information, including gender, age, educational background, professional title, and working years.

The second part: The questionnaire on the current situation of the development model of information leadership for Mid-Level Administrators in private universities in Guangxi was conducted using the Likert 5-level scale. The evaluation was divided into 5 indicating very agree, 4 indicating agree, 3 indicating uncertainty, 2 indicating disagree, and 1 indicating very different. The content of the questionnaire

is arranged in the order of four variables: information technology ability, information planning ability, information management ability, and information evaluation ability.

Structured Interview Form

Based on the data from the questionnaire survey and analysis, this paper summarizes the current situation of the information leadership development model for Mid-Level Administrators in private universities in Guangxi, designs an interview outline, and forms a structured interview form for qualified personnel.

3. Evaluation Form

Based on the results of questionnaires and interviews, this paper proposes a model for the development of information leadership among Mid-Level Administrators in private universities in Guangxi, designs a model implementation evaluation table, and invites experts to evaluate the applicability and feasibility of the model implementation.

Check the Quality of Research Instruments

Questionnaire

Study the references, documents, data, definitions of variables, and the framework for variable measurement related to questionnaire research variables.

According to the purpose and object of the survey, develop the elements and relevant indicators of the preliminarily constructed competency model, prepare a questionnaire, and prepare the questionnaire questions.

Five experts were invited to inspect the questionnaire. In order to check the quality of the questionnaire content, five experts are invited to propose suggestions for improving the questionnaire based on appropriate and inappropriate operational definitions of the content, taking into account the consistency and appropriateness of each question in the questionnaire. After calculating the corresponding index (project goal consistency index: IOC) and operation definition for each issue, it is found that the index for each issue is 1, and it can be concluded that each issue is consistent with the operation definition.

The reliability and validity of the questionnaire were analyzed using SPSS 19.0 to test whether the design of the questionnaire was correct. the reliability and validity of the questionnaire, with a reliability of 0.955 and a validity of 0.965. The questionnaire is reliable and feasible.

Interview Questions

The interview questions are designed based on the data analysis results of the questionnaire on the current situation of the information leadership development model for Mid-L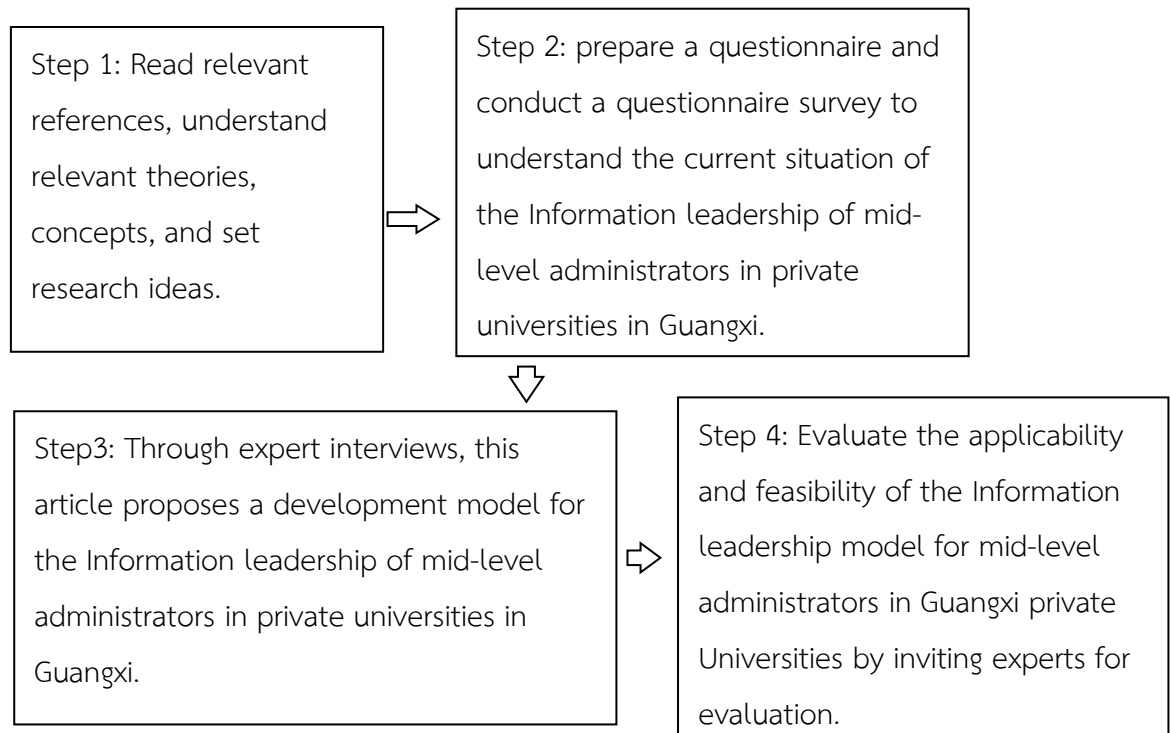evel Administrators in private universities in Guangxi. The interview questions are mainly aimed at the existing problems and improvement suggestions of the information technology ability, information planning ability, information management ability, and information evaluation ability to establish the model.

Evaluate the applicability and feasibility of the model

Five experts from private universities in Guangxi with over 10 years of work experience, a master's degree or above, and a professional title of associate professor or above are invited to evaluate the applicability and feasibility of the evaluation model. Using a five level rating scale, the assessment is divided into Ultra High, High, Medium, Low, and Ultra Low. Respondents can only choose one level.

Data Collection

Researchers collect data based on the type and steps of research tools. As follows:

1. Questionnaire

1) Questionnaire design: Researchers design a research questionnaire based on the first research purpose, receive guidance from a mentor, and then submit it to the graduate school of the university for review and approval.

2) Distribution of questionnaires: From October 10 to October 30, 2022, researchers distributed the questionnaires to 11 private universities in Guangxi and asked respondents to fill out the questionnaires.

3) Questionnaire data collation: Organize the collected questionnaire, check the completeness of the questionnaire, and use SPSS to analyze the complete and effective questionnaire data.

2. Interview

1) Summarize the analysis results of the information leadership discovery questionnaire for Mid-Level Administrators in private universities in Guangxi, and

develop an interview outline.

2) Using a structured interview approach, interviews were conducted with Mid-Level Administrators from 11 private universities in Guangxi, with 1 person from each school, a total of 11 people. Qualifications required for interviewees: Mid-Level Administrators personnel with more than 5 years of university work experience, master's degree or above.

3) Conduct interviews. The researchers distributed an interview outline to 11 interviewees for interviews.

4) Interview data analysis.

3. Appraisal and Consultation

1) Design an evaluation form and check its correctness, appropriateness, and usefulness.

2) Invite experts to participate in the model evaluation.

3) After the evaluation, the evaluation content and data were analyzed.

Data Analysis

Questionnaire

Before analyzing the data, the researcher first checks the validity and completeness of the collected questionnaire data. For incorrect, invalid, or incomplete data, delete it first, and then analyze the valid questionnaire.

Preliminary analysis: Analyze the data characteristics of various research variables, including basic statistical analysis of variables using SPSS. Preliminary data analysis is to analyze the basic information of the sample, including gender, age, educational background, professional title, work experience, and calculate the percentage and frequency;

In-depth analysis: In order to achieve the research purpose, researchers conducted statistical analysis and calculation on the average value and standard deviation of variables based on relevant theories and methods.

Interview

Using a structured interview approach, interviews were conducted with Mid-Level Administrators from 11 private universities in Guangxi, with 1 person from each

school, a total of 11 people. Qualifications required for interviewees: Mid-Level Administrators personnel with more than 5 years of university work experience, master's degree or above.

Evaluation

Analyze the applicability and feasibility of the evaluated content by calculating the average of actual possibilities ($\overline{X}$) and using the statistical average ($\overline{X}$) and standard deviation (SD) of data analysis to determine higher applicability and feasibility.

Data Interpretation

According to the MLQ five level standard jointly developed by Bass&Avolio (1990), researchers have defined the data interpretation standard for Mid-Level Administrators in private universities in Guangxi

As follows：

4.51-5.00	Refer to	Highest level
3.51-4.50	Refer to	High level
2.51-3.50	Refer to	Medium level
1.51-2.50	Refer to	Lower level
1.00-1.50	Refer to	Lowest level

After evaluating the applicability and feasibility of the information leadership development model for Mid-Level Administrators in private universities in Guangxi, the researchers determined the criteria for data interpretation.

As follows：

4.51-5.00	Refer to	Highest level
3.51-4.50	Refer to	High level
2.51-3.50	Refer to	Medium level
1.51-2.50	Refer to	Lower level
1.00-1.50	Refer to	Lowest level

Chapter 4
Results of Analysis

This chapter conducts data analysis around the three research objectives of this study. (1) Research the current situation of Information leadership development of mid-level Administrators in private universities in Guangxi; (2) Constructing the development model of Information leadership for mid-level Administrators in private universities in Guangxi; (3) To evaluate the applicability of the Information leadership development model for mid-level Administrators in private universities in Guangxi. Tables or charts were provided for description. A total of 294 questionnaires were issued, and 254 valid questionnaires were collected, accounting for 86.39% of the issued questionnaires. Data analysis can be conducted.

The data analysis steps are as follows:

1. General characteristics of the sample group

2. Research on the current situation of Information leadership of mid-level Administrators in private Universities in Guangxi

3. Research on the Information Leadership Development Model of Mid-Level Administrators in Guangxi Private Universities

4. Research on the Applicability and Possibility of the Information Leadership Development Model for mid-level Administrators in Guangxi Private Universities Evaluation Data Analysis

Personal information of the sample group, including gender, age, education, professional title, and experience.

Table 4.1 Sampling Distribution (n=254)

Personal information		Number	percent
Gender	male	136	53.5
	female	118	46.5
	total	254	100
Age	25 to 35 years old	41	16.1
	36 to 45 years old	148	58.3
	46 to 55 years old	51	20.1
	More than 55 years old	14	5.5
	total	254	100
Education	Junior college education	2	0.8
	Bachelor degree	65	25.6
	A master's degree	129	50.8
	Doctoral degree	58	22.8
	total	254	100
Position	No title	21	8.3
	Teaching assistant	21	8.3
	The lecturer or	43	16.9
	Associate professor	125	49.2
	Professor	44	17.3
	total	254	100
Experience	Less than 5 years	32	12.6
	6 to 10 years	46	18.1
	11 to 15 years	123	48.4
	More than 15 years	53	20.9
	total	254	100

According to Table 4.1254, there are 136 males, accounting for 53.5%, and 118 females, accounting for 46.5%. The largest age group is 148 people aged 36-45, accounting for 58.3%; The second is 51 people aged 46-55, accounting for 20.1%; 41 people aged 25-35, accounting for 16.1%; 14 people aged 56 and above, accounting for 5.5%; There are 2 junior college students, accounting for 0.8%; There are 65 undergraduate students, accounting for 25.6%; 129 masters, accounting for 50.8%; There are 58 doctors, accounting for 22.8%. The professional titles are mainly deputy senior professional titles, with 125 people accounting for 49.2%; 44 people with senior professional titles, accounting for 17.3%; 43 people with intermediate professional titles, accounting for 16.9%; 21 people with junior professional titles, accounting for 8.3%; 21 persons without professional titles, accounting for 8.3%; The majority of employees have worked for 11-15 years, with 123 employees accounting for 48.4%; 53 people over 16 years, accounting for 20.9%; 46 people in 6-10 years, accounting for 18.1%; 32 within 5 years, accounting for 12.6%.

Research on the current situation of Information leadership of mid-level Administrators in private Universities in Guangxi

The current situation of each variable was analyzed using mean values and standard deviations.

1. Analysis of the current situation of Information leadership (n=254)

Table 4.2 Current Situation of Information Leadership

Information Leadership	$\overline{\mathrm{X}}$	SD	Level	order
1. Information technology ability	3.15	0.79	medium	4
2. Information planning ability	3.21	0.78	medium	3
3. Information management ability	3.25	0.74	medium	2
4. Information evaluation ability	3.26	0.73	medium	1
Total	**3.22**	**0.76**	medium	

According to Table 4.2 the average scores of respondents' information technology skills, information planning skills, information management skills, and

information evaluation skills are between 3-3.5 points. According to the theoretical median, a score higher than 3 but lower than 3.5 is considered moderate, and a score higher than 3.5 is considered high. Therefore, the respondents' information technology ability, information planning ability, information management ability, and information evaluation ability are all at a medium level, indicating that the Information leadership of mid-level Administrators in Guangxi private universities needs to be improved. According to the ranking, the average score of information evaluation ability is the highest ($\overline{X}$ =3.26), followed by information management ability ($\overline{X}$ =3.25), information planning ability ($\overline{X}$ =3.21), and information technology ability ($\overline{X}$ =3.15).

      2. Analysis of the current situation of information technology ability (n=254)

Table 4.3 Current Situation of Information Technology ability

Information technology ability	$\overline{X}$	SD	Level	order
1. Administrators have the ability of information acquisition	3.23	0.76	medium	2
2. Administrators have the ability of information processing	3.20	0.77	medium	3
3. Administrators have the ability of information integration	3.15	0.82	medium	5
4. Administrators have the ability of information exchange	3.14	0.77	medium	6
5. Administrators have the ability of information research	2.94	0.94	medium	7
6. Administrators have the ability to learn and update information technology	3.25	0.69	medium	1
7.Administrators have the information technology ability to achieve the work	3.17	0.79	medium	4
Total	**3.15**	**0.79**	**medium**	

According to Table 4.3 the average score for each item of respondents' information technology skills is between 2.9 and 3.5 points. According to the theoretical median, scores above 3 and below 3.5 are considered moderate, while scores above 3.5 are considered high. Therefore, respondents' seven information technology ability are at a medium level, indicating that their information technology ability need to be improved. According to the ranking, the highest score is the ability of administrators to learn and update information technology ($\overline{X}$ =3.25) while the lowest score was for administrators with information research skills ($\overline{X}$ =2.94).

3. Analysis of the current situation of information planning ability (n=254)

Table 4.4 Current Situation of Information Planning Ability

Information planning ability	$\overline{X}$	SD	Level	order
1. Administrators have the ability of analyze study and judge the information	3.21	0.78	medium	4
2. Administrators have the ability to scientifically formulate information technology work	3.30	0.73	medium	1
3. Administrators have the ability to plan and organize information	3.17	0.86	medium	5
4. Administrators have the ability to guide information planning and design	3.28	0.70	medium	2
5. Administrators have the strategic thinking ability of information planning	3.10	0.83	medium	7
6. Administrators have the ability to study and judge information technology development	3.14	0.79	medium	6
7. Administrators have the ability of Information vision planning	3.24	0.76	medium	3
Total	3.21	0.78	medium	

According to Table 4.4, the average score for each item of respondents' information planning ability is between 3 and 3.5 points. According to the theoretical median, scores above 3 and below 3.5 are considered moderate, while scores above 3.5 are considered high. Therefore, the respondents' seven information planning abilities are at a medium level, indicating that their information planning abilities need to be improved. Among them, the highest score ($\overline{X}$ =3.30) was the ability of administrators to scientifically formulate information technology work plans, while the lowest score was the ability of administrators to think strategically in information technology planning ($\overline{X}$ =3.10).

Analysis of the current situation of information management ability (n=254)

Table 4.5 Current Situation of Information Management ability

Information management ability	$\overline{X}$	SD	grade	sequence
1. Administrators promote teachers' information teaching ability in an organized way	3.30	0.76	medium	1
2. Administrators have the ability to organize information training	3.28	0.72	medium	2
3. Administrators have the ability to organize the formulation of information rules and	3.23	0.78	medium	5
4. Administrators have the ability to optimize the information learning environment	3.22	0.70	medium	6
5. Administrators have the ability to promote information management	3.27	0.65	medium	3
6. Administrators have the ability to develop information incentive mechanism	3.25	0.79	medium	4
7. Administrator have the ability to organize information assessment	3.20	0.77	medium	7
Total	**3.25**	**0.74**	**medium**	

According to Table 4.5 the average score for each item of the respondents' information management ability is between 3 and 3.5 points. According to the theoretical median, a score above 3 but below 3.5 is considered a medium level, and a score above 3.5 is considered a high level. Therefore, the seven information management abilities of the respondents are at a medium level, indicating that their information management abilities need to be improved. "administrators' ability to organize and promote teachers' information based teaching" has the highest average score ($\overline{X}$ =3.30), while "administrators' ability to organize and assess information based teaching" has the lowest average score ($\overline{X}$ =3.20)

5. Analysis of the current situation of information evaluation ability (n=254)

Table 4.6 Current Situation of Information Evaluation ability

Information evaluation ability	$\overline{X}$	SD	grade	sequence
1. Administrator have the ability to analyze information problems	3.21	0.89	medium	7
2. Administrator have the ability to formulate information evaluation mechanism	3.27	0.68	medium	3
3. Administrator have the ability to research the status quo of Information	3.28	0.76	medium	2
4. Administrator have the ability to formulate information strategy adjustment	3.23	0.67	medium	6
5. Administrator have the ability to evaluate the information benefits	3.25	0.72	medium	5
6. Administrator have the ability to judge the bottleneck of information construction	3.29	0.72	medium	1
7. Administrator have the ability to predict and evaluate the information trend	3.26	0.71	medium	4
Total	3.26	0.73	medium	

According to Table 4.6 the average score for each item of the respondent's information evaluation ability is between 3 and 3.5 points. According to the theoretical median, a score above 3 and below 3.5 is a medium level, and a score above 3.5 is a high level. Therefore, the information evaluation abilities of the respondents are at a medium level, indicating that their information evaluation abilities need to be improved. The highest average score for "administrators with the ability to judge bottlenecks in information construction" was($\overline{\mathbf{X}}$ =3.29), while the lowest average score for "administrators with the ability to analyze information issues" was($\overline{\mathbf{X}}$ =3.21).

Through descriptive statistical analysis of research data on the four variables of interviewees' information technology ability, information planning ability, information management ability, and information evaluation ability, it is found that the interviewees' abilities in the four aspects of information technology ability, information planning ability, information management ability, and information evaluation ability are at a moderate level, indicating that they need to be improved.

Research on the Information Leadership Development Model of Mid-Level Administrators in Guangxi Private Universities

Using a structured interview approach, interviews were conducted with Mid-Level Administrators from 11 private universities in Guangxi, with 1 person from each school, a total of 11 people. Qualifications required for interviewees: Mid-Level Administrators personnel with more than 5 years of university work experience, master's degree or above.

Interview data analysis

Table 4.7 List of Respondents

Number	Education	Title Job	Work Years	Work Unit
1	Master	Mid-Level Administrators	15	Nanning University
2	Master	Mid-Level Administrators	7	Guangxi University of Foreign Languges
3	Master	Mid-Level Administrators	8	Guangxi City Vocational University
4	Doctor	Mid-Level Administrators	12	Xiangsihu College of Guangxi University for Nationalities
5	Master	Mid-Level Administrators	8	Faculty of Chinese Medicine Science Guangxi University of Chinese Medicine
6	Master	Mid-Level Administrators	16	Liuzhou Institute of Technology
7	Doctor	Mid-Level Administrators	18	Guilin Institute of Information Technology
8	Master	Mid-Level Administrators	17	Guilin University
9	Master	Mid-Level Administrators	11	Nanning College of Technology
10	Master	Mid-Level Administrators	12	Beihai University of Ard Design
11	Master	Mid-Level Administrators	8	Shiyuan Colege of Nanning Normal University

Interviewee 1

1. What good suggestions do you have for improving the information technology ability, information planning ability, information management ability, and information evaluation ability of Mid-Level Administrators personnel in the school?

A: I believe that the main measures for improving information technology ability include: (1) establishing an information based training mechanism and conducting regular training in schools. (2) Build an online learning platform to provide various information technology courses for Mid-Level Administrators to learn at any time. (3) Increase investment in information technology resources. Fourth, promote information application Information planning ability: (1) Strengthen personnel training. (2) Strengthen team building, promote information sharing and collaborative work, and improve the overall information planning ability of the team. (3) Promote the concept of information technology and enhance the awareness of Mid-Level Administrators about the importance and necessity of school information construction. (4) Establish a performance appraisal mechanism to motivate and constrain Mid-Level Administrators personnel in universities and improve their information planning ability. Information management ability: (1) Strengthen training. (2) Regularly evaluate and timely improve information management issues. (2) Provide the resources needed for information management. (4) Establish a communication mechanism. (5) Encourage innovation in management work and improve work efficiency and quality.

Information evaluation ability: (1) Strengthen training to improve their information evaluation ability and professional literacy. (2) Establish a complete information evaluation mechanism for universities and clarify the evaluation criteria for information resources. (3) Strengthen information sharing and communication, so that Mid-Level Administrators can timely and accurately obtain the required information resources. (4) Guide the use of evaluation tools to improve the efficiency and accuracy of information evaluation

2. What do you think are the factors that affect and restrict the information

leadership construction of Mid-Level Administrators personnel in our university? What kind of solution suggestions do you have?

I believe that the main factor affecting information management is the lack of versatile talents. People are users and disseminators of information, so Mid-Level Administrators play a very important role in information construction. In addition, the generation of a new technology requires certain financial support, mainly including hardware facilities and personnel training. Therefore, in order to strengthen information construction, there must be sufficient funds and equipment requirements. Therefore, building an information management system and training middle-level cadres can make up for the current lack of information construction in schools.

3. What measures has your school taken to improve the information leadership of middle level cadres? What aspects do you think need to be improved, and what specific comments and suggestions do you have?

(1) My school has introduced various information management platforms to build a diversified management system through various management cadre training courses, training lectures, special seminars, and other projects, thereby improving the information leadership of middle level cadres.(2) information is an effective means and basic project for building a high-quality professional cadre team and achieving continuous improvement in the level of cadre work. I believe that schools should take information security as the prerequisite and foundation for system construction, and establish an integrated cadre management information platform through unified information collection, automatic generation of data packets, and secure media transmission.

4. What effective measures do you think should be taken to improve the information leadership of Mid-Level Administrators in private universities in Guangxi? Improving the information leadership of Mid-Level Administrators in Guangxi private colleges and universities lies in the overall development of education information construction projects in colleges and universities. To carry out education information construction projects in private colleges and universities, it is necessary to start from the school philosophy and school objectives, accurately position, clarify

development ideas, and actively participate in and cooperate with each other under the unified leadership of the school's party and government leadership team and information construction team, actively and orderly promote them. The information construction of a private university is like a new technological revolution, involving every teacher, student, and administrator of the school. This requires private colleges and universities to do a good job of publicity and guidance in accordance with the development law of educational information in the construction of information technology, so that the majority of teaching staff, students, and Administrators consciously and actively participate in the construction of information technology. (1) The construction of educational information in private colleges and universities is a huge systematic project. Before construction, it is necessary to scientifically plan and integrate resources, as well as overall and scientific planning. Private colleges and universities should not only avoid risks, but also improve the ability and management level of self-developed system software; Also, take the initiative to cooperate with public universities, increase the development and co construction of resources covering public and private higher education, promote the integration and sharing of educational resources, and form a multi-level, multi-functional, and interactive national educational resource service system; Actively cooperate with educational software development enterprises to explore operational mechanisms and management systems that adapt to the development of the software industry in private higher education, and effectively solve the resource and funding challenges in the information construction of private colleges and universities.

(2) The government should issue corresponding support plans and documents to increase policy support, and provide a good policy and public opinion environment for the information construction of private universities. At the same time, the government should also focus on the long-term development of private higher education, actively assist private colleges and universities in raising funds from various sources, explore a compensation mechanism for information technology construction funds, centralize advantageous financial resources, and enable private colleges and universities to invest in information technology construction by stages.

(3) information construction certainly needs the support of hardware facilities,

but it is not simply a simple stack of advanced equipment, but a systematic project composed of three major elements, namely, talent information resources and modern information technology, among which talent is the new force in the construction of educational information. The information construction of private colleges and universities requires an information atmosphere in which principals understand, key personnel are skilled, and teachers can use it. It is also necessary to strengthen the ability of self-educated talents and improve the overall information technology level of the school by carrying out progressive training, learning-use training, and topic research training.

(4) Accelerating the construction of information platform services and management systems, and establishing and improving the information management and public service system of private higher education systems are beneficial explorations to promote the scientific, coordinated, and healthy development of private higher education in China. Through platform construction, we can better provide literature services, project achievement services, teaching resource services, and teaching support services for teachers, students, management departments, and society, and provide management services for management departments and the education industry. At the same time, we will further strengthen the construction of application platforms for private colleges and universities, such as qualification review, school enrollment, student status management, student funding, school quality monitoring, and student employment, to ensure that private colleges and universities are standardized in running schools, transparent in enrollment, and quantifiable in development.

(5) Promote the sharing mechanism of educational resources in different regions. At present, there is a situation where educational information in colleges and universities in Guangxi is extremely rich and relatively poor in resources. There are differences between the standards of information resources and actual applications. Some private colleges and universities have not developed a sound sharing mechanism for educational information resources, resulting in their repeated development, leading to a waste of human, material, and financial resources, and it is relatively difficult to share educational information resources. This requires education management departments to consciously establish and improve the education information system, clarify their responsibilities, do a good job in overall planning, coordination, and

information communication, and jointly promote the resource sharing mechanism and sustainable development mechanism of education information for private higher education in East Guangxi.

Interviewee 2

1. What good suggestions do you have for improving the information technology ability, information planning ability, information management ability, and information evaluation ability of Mid-Level Administrators personnel in the school?   Information technology: (1) Strengthen training to promote Mid-Level Administrators to master basic information technology skills. (2) We should promote the application of information technology and encourage Mid-Level Administrators to actively apply information technology. (3) It is necessary to carry out information technology competitions and reward Mid-Level Administrators with excellent information technology skills. (4) It is necessary to strengthen the assessment of information technology ability of middle level Administrators.

Information planning ability: (1) Provide information planning training courses and invite experts to teach. (2) The school has strengthened the top-level design of information planning to provide information planning reference for Mid-Level Administrators personnel. (3) Mid-Level Administrators personnel should strengthen their learning of the school's philosophy, positioning, and objectives, and plan the direction for clear information. (4) Incorporate into performance appraisal.

Information management ability: (1) Streamline information management workflow and improve the work efficiency of middle level Administrators. (2) Establish information management projects and enhance research on information management construction. (3) Increase training funds and strengthen information management training. (4) Organize visits and inspections to broaden the information management perspective of middle level Administrators. (5) Establish information management evaluation standards and incorporate them into performance evaluation.

2. What do you think are the factors that affect and restrict the information leadership construction of Mid-Level Administrators personnel in our university? What kind of solution suggestions do you have?

(1) School: The importance attached by school leaders to information

construction, the status of digital campus construction, the promotion of digital campus, and the understanding of teachers and students on it will all affect whether there is an information construction plan, whether software and hardware facilities required for the development of information construction are provided, and whether personnel are required to carry out relevant work related to digital construction.

(2) Personal aspects: knowledge level, experience, professional category, awareness, understanding level, etc. may have an impact on information construction; In terms of understanding level, there is insufficient understanding of the global information development trend and the importance and necessity of school information construction, and insufficient ideological attention. There is a lack of motivation for learning and improving information technology ability, information planning ability, information management ability, information evaluation ability, and other core capabilities of information leadership.

3. What measures has your school taken to improve the information leadership of middle level cadres? What aspects do you think need to be improved, and what specific comments and suggestions do you have?

At present, my school does not attach great importance to information technology construction, and there is also an assessment of information technology construction goals and tasks for Mid-Level Administrators cadres. The construction of promotional information is also not well done.

Suggestions: (1) Schools should first attach importance to information construction and invest special funds and personnel for information construction. (2) Update the concept of information management and lead the professional growth of teachers. (3) Develop information construction plans, establish assessment and incentive systems, and carry out regular information construction evaluation. (4) Strengthen information management and application, establish and improve information management systems and processes. (5) Improve the cooperation ability of information teams and achieve collective improvement of information leadership. (6) Strengthen information sharing and communication, and establish a communication and communication mechanism for middle level cadres.

4. What effective measures do you think should be taken to improve the

information leadership of Mid-Level Administrators in private universities in Guangxi?

(1) The school attaches importance to the construction of an information based campus, ensures sufficient investment in special funds, formulates an information based construction plan, establishes an assessment and incentive system, and carries out a regular evaluation of information based construction. (2) Strengthen information awareness, vigorously promote information technology knowledge, and improve middle-level cadres' understanding of the importance and necessity of information technology. (3) Strengthen information management and application, establish and improve information management systems and processes. Promote the digital management and construction of schools, strengthen the rational use of resources, and advocate campus information based teaching. (4) Create an information based atmosphere, and enhance information based leadership through the establishment of excellent information based cases, achievement demonstration, and consulting services.

Interviewee 3

What good suggestions do you have for improving the information technology ability, information planning ability, information management ability, and information evaluation ability of Mid-Level Administrators personnel in the school? Answer: In terms of information technology ability: (1) Increase funding and strengthen training. (2) Build an online learning platform that provides various information technology courses, allowing Mid-Level Administrators to learn anytime, anywhere, and improve their information technology ability. (3) Increase investment in information technology resources and provide better information technology work environment and conditions. (4) Encourage Mid-Level Administrators personnel to strengthen information technology knowledge learning and actively participate in practice. (5) Strengthen the assessment of information technology ability.

Information planning ability:

Conduct special training, set up relevant training courses, and improve the information planning ability of Mid-Level Administrators. (2) Schools should do a good job in the top-level planning of information construction, and clarify the direction for Mid-Level Administrators to carry out departmental information construction planning. (3) Strengthen team building, promote information sharing and collaborative work, and

improve the overall information planning ability of the team.

Information management ability:

Strengthen training and improve Mid-Level Administrators personnel. (2) The school has strengthened the construction of an information based campus platform to provide a management practice platform for middle level Administrators. (3) Strengthen investment in information technology equipment, software systems, databases, and other information resources. (4) Encourage innovation, absorb advanced information management concepts and technologies, and improve work efficiency and quality.

Information evaluation ability:

1. Strengthen the training on information evaluation knowledge and technology for Mid-Level Administrators personnel, and promote them to master the methods and work use of information evaluation. (2) Establish a complete high information evaluation mechanism and carry out normalized information construction evaluation. (3) Incorporate information evaluation into performance appraisal to promote the conscious strengthening of middle level Administrators.

2. What do you think are the factors that affect and restrict the information leadership construction of Mid-Level Administrators personnel in our university? What kind of solution suggestions do you have?

(1) School: Currently, there is no information construction plan, no requirements for information leadership of middle level Administrators, and no standards for information leadership construction of Mid-Level Administrators cadres have been formulated.

(2) Personal aspects: insufficient ideological attention, lack of awareness of the importance of information leadership, lack of information technology ability, information planning ability, information management ability, information evaluation ability, and other core capabilities of information leadership

3. What measures has your school taken to improve the information leadership of middle level cadres? What aspects do you think need to be improved, and what specific comments and suggestions do you have?

No, some relevant training can be conducted.

4. What effective measures do you think should be taken to improve the

information leadership of Mid-Level Administrators in private universities in Guangxi?

(1) Schools can formulate information construction plans. (2) Develop an assessment and incentive system mechanism. (3) Carry out regular information construction evaluation. (4) Strengthen training on IT leadership, and organize middle level cadres to participate in training courses, seminars, inspections, and exchanges on IT leadership.

Interviewee 4

1. What good suggestions do you have for improving the information technology ability, information planning ability, information management ability, and information evaluation ability of Mid-Level Administrators personnel in the school?   Personally, I believe that the following measures should be taken to improve the abilities of middle level Administrators: (1) Increase funding and strengthen personnel training. (2) Establish relevant competency standards and strengthen assessment. (3) The school provides equipment and conditions for various aspects of information construction. (4) Organize Mid-Level Administrators personnel to go out for investigation and exchange experiences and practices with other universities. (5) Mid-Level Administrators should enhance their information awareness and automatically strengthen their information knowledge learning.

2. What do you think are the factors that affect and restrict the information leadership construction of Mid-Level Administrators personnel in our university? What kind of solution suggestions do you have?

(1) School leaders have not paid enough attention to information technology construction, the school has not issued information technology construction plans, has not proposed specific requirements for the information technology leadership of middle level Administrators, and has not issued information technology leadership construction standards and evaluation indicators for Mid-Level Administrators cadres.

(2) Many Mid-Level Administrators do not have a professional background in IT or science and engineering, and lack awareness and understanding of IT leadership. Inadequate understanding of the global information development trend and the importance and necessity of school information construction, insufficient ideological attention, and lack of motivation to learn and improve core competencies of

information leadership such as information technology ability, information planning ability, information management ability, and information evaluation ability.

Suggestions: School leaders should attach importance to the information leadership construction of Mid-Level Administrators in the school, strengthen top-level design, introduce relevant plans, and implement them in place.

3. What measures has your school taken to improve the information leadership of middle level cadres? What aspects do you think need to be improved, and what specific comments and suggestions do you have?

During the winter vacation, our school organized all teachers to participate in online information literacy training courses, which to some extent improved the information leadership of our Mid-Level Administrators personnel through online learning and training. Suggestions: (1) School leaders should attach importance to information construction and establish special budget. (2) Build a campus information platform. (3) Formulate information construction plans. (4) An assessment and incentive system has been introduced. (5) Carry out a regular evaluation of information construction, and assess the information construction goals and tasks of middle-level management cadres.

4. What effective measures do you think should be taken to improve the information leadership of Mid-Level Administrators in private universities in Guangxi?

(1) School leaders attach importance to the key. (2) Adequate investment in special funds for security. (3) Develop a reasonable and effective assessment and incentive system mechanism. (4) Strengthen the training of information leadership for middle level cadres, and organize middle level cadres to participate in training courses, seminars, inspections, and exchanges on information leadership.

Interviewee 5

What good suggestions do you have for improving the information technology ability, information planning ability, information management ability, and information evaluation ability of Mid-Level Administrators personnel in the school?

In summary, I believe there are mainly the following measures: (1) Ensure funding, strengthen training, and improve the information capabilities of middle level Administrators. (2) The school completes the top-level design of information construction and provides an information platform. (3) It is necessary to establish various

competency standards for information leadership, strengthen assessment, and incorporate performance. (4) Mid-Level Administrators personnel improve their information awareness and strengthen learning.

2. What do you think are the factors that affect and restrict the information leadership construction of Mid-Level Administrators personnel in our university? What kind of solution suggestions do you have?

(1) As for schools, the main reason is the lack of assessment and evaluation of information technology construction, the general lack of awareness of using information technology for office work among middle level leaders, and the failure to establish a good information technology construction atmosphere, which directly affects the information technology leadership construction of middle level Administrators.

(2) Personally speaking, some middle level leaders are older and lack the awareness of information based office work, as well as the exploration of new affairs, and their personal awareness of participating in and accepting information based construction is weak.

Suggestions: In addition to hardware construction, it is necessary to strengthen software construction, introduce effective evaluation and incentive mechanisms as soon as possible, incorporate information leadership construction into an important part of personnel work, and include it as a component of departmental or individual work performance. Each year, a reasonable evaluation of the information leadership of middle level leaders is made.

3. What measures has your school taken to improve the information leadership of middle level cadres? What aspects do you think need to be improved, and what specific comments and suggestions do you have?

Answer: (1) The school has established a specialized information construction department. (2) There are short-term and long-term plans for the information construction of the school. (3) Increased investment in information construction, and established multiple information platforms to improve office efficiency and level. (4) The information construction department has also organized and carried out relevant training activities to improve the application level of middle level leaders.

Suggestions: (1) Relevant supporting systems should be introduced to improve

the utilization rate of these platforms, organize relevant departments to conduct in-depth grassroots research, optimize existing information platforms, and provide a better use experience. (2) It is necessary to regularly organize and carry out special training to enhance the awareness and ability of Mid-Level Administrators to participate in information construction.

4. What effective measures do you think should be taken to improve the information leadership of Mid-Level Administrators in private universities in Guangxi?

Answer: (1) It is necessary to strengthen campus information construction, formulate scientific information construction plans, ensure funding investment, and comprehensively strengthen campus information construction. (2) Strengthen application promotion and ensure that the construction of the information platform achieves practical results. (3) Establish an assessment and evaluation mechanism to put forward specific institutional requirements for the information leadership of middle level Administrators. (4) Strengthen training and guidance, regularly organize inspections and exchanges, and enable Mid-Level Administrators to actively improve their IT leadership.

Interviewee 6

1. What good suggestions do you have for improving the information technology ability, information planning ability, information management ability, and information evaluation ability of Mid-Level Administrators personnel in the school?

A: Personally, I believe that it should be strengthened through the following aspects:; (1) School leaders should attach importance to strengthening the construction of information based campuses. (2) Schools should have clear requirements for the information abilities of Mid-Level Administrators personnel in all aspects, and should conduct assessments. (3) Organize training in a planned manner. (4) Establish a platform for learning and communication. 2. What do you think are the factors that affect and restrict the information leadership construction of Mid-Level Administrators personnel in our university? What kind of solution suggestions do you have?

Constraints include the lack of supporting incentive policies in schools. (2) The cultural atmosphere of lifelong learning among teachers has not been formed. (3) The information level of the school or region is low.

Suggestions: (1) The school attaches great importance to the construction of

information technology ability of middle level Administrators. (2) Improve the level of school information hardware. (3) Strengthen the construction of information content, introduce relevant incentive policies and measures, and include them in relevant assessment indicators.

3. What measures has your school taken to improve the information leadership of middle level cadres? What aspects do you think need to be improved, and what specific comments and suggestions do you have?

The measures taken by the school to improve the information leadership of middle level cadres are few, almost non-existent, or not targeted enough.

It is recommended to normalize the training related to improving the information leadership of middle level cadres, and carry out targeted training for different types of middle level cadres.

4. What effective measures do you think should be taken to improve the information leadership of Mid-Level Administrators in private universities in Guangxi?

Strengthen publicity, policy incentives, training, assessment, etc

Interviewee 7

1. What good suggestions do you have for improving the information technology ability, information planning ability, information management ability, and information evaluation ability of Mid-Level Administrators personnel in the school?

My main recommendations are as follows: (1) The school has a plan to organize relevant training. (2) The school attaches importance to the construction of campus information. (3) The school has formulated standards for information technology ability and strengthened assessment. (4) The school ensures sufficient funding for campus information construction and personnel training. (5) Schools should strengthen publicity and create an information based atmosphere. (6) Mid-Level Administrators should strengthen daily communication.

2. What do you think are the factors that affect and restrict the information leadership construction of Mid-Level Administrators personnel in our university? What kind of solution suggestions do you have?

Answer: (1) In terms of school: School leaders do not attach importance to information construction, have no information construction planning, have not provided

the software and hardware facilities required for the development of information construction, have not proposed requirements for the information leadership of middle level Administrators, have not formulated standards for the information leadership construction of Mid-Level Administrators cadres, have no assessment indicators, have no constraints, and have no pressure. (2) Personal aspects: knowledge level, professional category, awareness, understanding level, etc., such as: IT and science and engineering majors have stronger awareness of information construction and are more sensitive to information than liberal arts majors; In terms of understanding level: insufficient understanding of the global information development trend and the importance and necessity of school information construction, insufficient ideological attention, and lack of motivation for learning and improving information technology ability, information planning ability, information management ability, information evaluation ability, and other core capabilities of information leadership;

Suggestions: (1) Unified deployment and planning of information construction at the school level (2) Build and improve IT software and hardware facilities and equipment. (3) Further strengthen the training of relevant personnel. (6) Introduce corresponding reward and incentive mechanisms, etc.

3. What measures has your school taken to improve the information leadership of middle level cadres? What aspects do you think need to be improved, and what specific comments and suggestions do you have?

Answer: Currently, my correction is in the transition stage, and there are still shortcomings in information construction. Information construction needs to be strengthened and further developed.

Suggestions: (1) Further strengthen and implement the information construction of our school. (2) Unified deployment of campus information construction. (3) Establish corresponding management organizations. (4) Establish budget input for special funds. (5) Build a campus information platform. (6) An assessment and incentive system has been established. (7) There is an assessment of information construction goals and tasks for Mid-Level Administrators cadres.

4. What effective measures do you think should be taken to improve the information leadership of Mid-Level Administrators in private universities in Guangxi?

Answer: (1) The school attaches importance to the construction of an information based campus and ensures sufficient investment in special funds. (2) Develop information construction plans, establish assessment and incentive systems, and carry out regular information construction evaluation. (3) Strengthen training on IT leadership, and organize middle level cadres to participate in training courses, seminars, inspections, and exchanges on IT leadership. (6) Strengthen information awareness, vigorously promote information technology knowledge, and improve middle-level cadres' understanding of the importance and necessity of information technology. (7) Strengthen information management and application, establish and improve information management systems and processes. (8) Improve the cooperation ability of information teams and achieve collective improvement of information leadership. (9) Strengthen information sharing and communication, and establish a communication and communication mechanism for middle level cadres.

Interviewee 8

What good suggestions do you have for improving the information technology ability, information planning ability, information management ability, and information evaluation ability of Mid-Level Administrators personnel in the school? Information technology:

Strengthen information awareness and actively strengthen learning. (2) Actively participate in training, investigation and communication activities. (3) Schools should provide equipment that meets the needs of information work. Fourth, establish a platform for mutual learning and communication.

Information planning: (1) Strengthen learning and understanding of the school's philosophy and objectives. (2) Strengthen the constant attention and grasp of the development trend of information technology. (3) Learn to master the methods and work use of information planning through participating in training, online learning, and other ways. (4) The school strengthened the assessment.

Information management ability: (1) Schools should apply office automation systems to improve management efficiency. (2) Establish information management projects and organize research by middle level Administrators. (3) Standardize school work processes to make work more smoothly. (4) Strengthen personnel training.

Information evaluation ability: (1) The school conducts regular evaluations to promote self-assessment and inspection by Mid-Level Administrators personnel. (2) Establish evaluation standards for information construction and provide evaluation basis. (3) Strengthen organizational training. (4) Incorporate into performance appraisal.

2. What do you think are the factors that affect and restrict the information leadership construction of Mid-Level Administrators personnel in our university? What kind of solution suggestions do you have?

The competent education department lacks guidance, planning, and relevant training. The private system of schools needs to consider the huge investment in information construction, making information technology remain oral and the degree of information in daily work is low. At the personal level, due to professional, awareness, ability, and other reasons, there is a lack of motivation to learn.

3. What measures has your school taken to improve the information leadership of middle level cadres? What aspects do you think need to be improved, and what specific comments and suggestions do you have?

Schools mainly promote their information capabilities through training and communication, which should be integrated into the development plan as a whole, provided with financial support, and included in the performance appraisal system.

4. What effective measures do you think should be taken to improve the information leadership of Mid-Level Administrators in private universities in Guangxi?

The school attaches importance to the construction of an information based campus, ensures sufficient investment in special funds, formulates information based construction plans, and develops training, assessment, and incentive systems. Create a strong atmosphere for information construction, strengthen information awareness, and create a team and benchmark for information construction.

Interviewee 9

1. What good suggestions do you have for improving the information technology ability, information planning ability, information management ability, and information evaluation ability of Mid-Level Administrators personnel in the school?

Answer: I believe that the following aspects should be done well: (1) The school attaches importance to information construction. (2) The school carries out the

construction of an information based campus platform. (3) The school has invested sufficient funds for information construction and personnel training. (4) The school has established an evaluation system for the information work of Mid-Level Administrators personnel.

2. What do you think are the factors that affect and restrict the information leadership construction of Mid-Level Administrators personnel in our university? What kind of solution suggestions do you have?

A: I believe that the main factors that affect and restrict the information leadership construction of Mid-Level Administrators personnel in our school include:

Schools do not attach enough importance to information technology construction in ideology and lack leadership in information technology Lack of effective cognition; (2) The school has not established a complete set of information construction system mechanisms; (3) The school does not invest enough in the construction of information software and hardware platforms; (4) Mid-Level Administrators have strong learning inertia and lack lasting motivation for construction; (5) Lack of data sensitivity; (6) Insufficient information management level and application ability; (6) There is no information based leadership assessment mechanism for middle level leaders.

Suggestions: (1) Schools should attach great importance to information construction from both ideological and operational perspectives; (2) Schools should establish a complete set of information construction systems and mechanisms; (3) Schools should increase efforts to invest in the construction of information based software and hardware platforms; (4) Mid-Level Administrators personnel should actively study, train, go out for investigation and exchange, etc; (5) Entering the era of big data, it is necessary to have a strategic awareness of big data; (6) Improve the level of information management and application ability in practice; (7) It is necessary to introduce information based leadership assessment elements.

3. What measures has your school taken to improve the information leadership of middle level cadres? What aspects do you think need to be improved, and what specific comments and suggestions do you have?

School leaders attach great importance to information construction, and each year there is a special fund for campus letter Construction, management and

maintenance of information platform; (2) The school has formulated the "14th Five Year Plan" for information construction; (3) The school has established an information based leadership training system to enhance middle level cadres; (4) The school has established an information based leadership assessment mechanism.

The areas that need to be improved are as follows: In terms of information platform construction, it is necessary to increase capital investment; (1) To accelerate the "one Netcom Office" information platform construction. (2) Schools should carry out a regular information construction evaluation, establish an evaluation system and standards, and invite experts from both inside and outside the school to participate in the evaluation.

4. What effective measures do you think should be taken to improve the information leadership of Mid-Level Administrators in private universities in Guangxi?

(1) Schools should formulate information construction plans; (2) Private colleges and universities are short of funds and can Introduce enterprises to invest in the construction of information platforms through school-enterprise cooperation; (3) The school should establish an information based leadership training system to enhance middle level cadres; (4) Strengthen information management and application, establish and improve information management systems and processes; (5) Improve information team cooperation ability and achieve collective improvement of information leadership; (6) Strengthen information sharing and communication, and establish a communication and communication mechanism for middle level cadres. (7) Create an information based atmosphere, and enhance information based leadership through the establishment of excellent information based cases, achievement demonstration, and consulting services.

Interviewee 10

1. What good suggestions do you have for improving the information technology ability, information planning ability, information management ability, and information evaluation ability of Mid-Level Administrators personnel in the school?

Answer: (1) School leaders should attach importance to information construction. (2) The school has built an information based campus platform. (3) The school invests sufficient financial support. (4) The school cooperates with enterprises, and the fifth is that the school has established an information technology ability assessment

mechanism.

2. What do you think are the factors that affect and restrict the information leadership construction of Mid-Level Administrators personnel in our university? What kind of solution suggestions do you have?

(1) School leaders do not attach importance to information construction. (2) There is no information construction plan. (3) The software and hardware facilities required for information construction and development are not provided. (4) There are no requirements for the information leadership of middle level Administrators. (5) There are no standards for the construction of information leadership for Mid-Level Administrators cadres. (6) There are no evaluation indicators, no constraints, and no pressure.

The most important thing is that the investment in information technology is too large, and the investment may not necessarily have a return, or the advantages of information technology have not yet been well reflected. "Expensive and easy to use technologies cannot be purchased, cheap ones are not easy to use, and if they are not easy to use, they are idle.". Private schools are short of funds and will prioritize investment in teaching, so the construction of information technology in private schools is a dilemma.

3. What measures has your school taken to improve the information leadership of middle level cadres? What aspects do you think need to be improved, and what specific comments and suggestions do you have?

(1) The school information construction has a special budget investment. (2) Establish a campus information platform and formulate information construction plans. (3) Schools should pay more attention to information construction.

However, I also understand that the funding for private education is tight, and it is indeed a difficult problem to increase investment at present. Therefore, it is hoped that with the development of information technology in China, more cost-effective technologies will emerge to meet the needs of various types of management. Private schools first need to have an information technology platform, and then talk about the information leadership of middle level cadres. Otherwise, it is useless to participate in any amount of training because heroes have no place to play. It is recommended that

the Department of Education hold more training sessions for school leaders. Only when their minds have changed, can the following problems arise. After all, middle level leaders in private schools are only executors, not the ultimate decision-makers.

4. What effective measures do you think should be taken to improve the information leadership of Mid-Level Administrators in private universities in Guangxi?

Answer: (1) The Guangxi Education Department should have goals and requirements for the information construction of private colleges and universities in the whole region, and require private colleges and universities to ensure the investment in information construction in the form of documents. (2) Schools should have an overall plan for information construction. (3) Schools should attach importance to the information leadership construction of Mid-Level Administrators personnel, and formulate relevant assessment system requirements. (4) Schools should strengthen the training of information technology skills for Mid-Level Administrators personnel.

Interviewee 11

1. What good suggestions do you have for improving the information technology ability, information planning ability, information management ability, and information evaluation ability of Mid-Level Administrators personnel in the school?

Answer:; In my opinion, the main measures are as follows: 1) The school attaches great importance to information construction and ensures investment in funds, 2) The school has established a good campus information platform, 3) The school has formulated an information construction plan, 4) Strengthen the training of middle level Administrators' information ability, and 5) Develop an information construction assessment and evaluation mechanism.

2. What do you think are the factors that affect and restrict the information leadership construction of Mid-Level Administrators personnel in our university? What kind of solution suggestions do you have?

Answer: (1) The leadership has not fully recognized the importance of information construction, and has not led Mid-Level Administrators personnel to carry out school information construction planning. (2) The knowledge reserve of Mid-Level Administrators personnel is insufficient, and the level of relevant knowledge is insufficient. (3) The communication between Mid-Level Administrators and all levels of

the school is insufficient and does not serve as a connecting link.

Suggestions: (1) Mid-Level Administrators should have the planning ability to pay comprehensive attention to the needs and situation of school development. (2) Mid-Level Administrators should have the guidance ability to provide information based guidance for teachers' teaching and students' learning based on the current situation. (3) Mid-Level Administrators should have the executive ability to understand the school's development vision and plan. (4) Strengthen the cultivation of communication skills of Mid-Level Administrators.

3. What measures has your school taken to improve the information leadership of middle level cadres? What aspects do you think need to be improved, and what specific comments and suggestions do you have?

(1) Attaching importance to the leadership work of the Mid-Level Administrators personnel, strengthening the role model, encouraging teachers to share high-quality information resources for the overall development of the school, enabling teachers to combine the information development goals of the secondary vocational school with their own professional development goals, and maintaining an active participation and sustainable development mindset in daily information teaching activities.

(2) It is required that Mid-Level Administrators personnel in schools receive regular evaluation of information leadership during their tenure, that is, by establishing corresponding performance indicator reward mechanisms, to enable school leaders to actively improve the development outline of school information construction and seek effective countermeasures

(3) In terms of funding and policies, it is necessary to improve the accuracy of support, create more practical and reliable opportunities based on the characteristics of the school and the actual needs of middle level Administrators, and provide more professional and targeted information leadership training for middle level Administrators. Strengthen theoretical and skill training for teachers' information leadership, and strengthen relevant training for middle level leaders and Administrators

4. What effective measures do you think should be taken to improve the information leadership of Mid-Level Administrators in private universities in Guangxi?

Suggestions: (1) The Guangxi Department of Education should strengthen the top-level design of information construction in private universities, clarify the objectives of information construction in private universities, and provide financial and policy support. (2) The school has incorporated information technology construction into its overall planning to ensure funding. (3) Strengthen information ability training for Mid-Level Administrators personnel. (4) Establish an information based assessment system for Mid-Level Administrators personnel and incorporate it into performance management.

Analysis of interview content

Based on the basic situation of the interview, this paper summarizes the development model of Information leadership for Mid-Level Administrators in private universities in Guangxi.
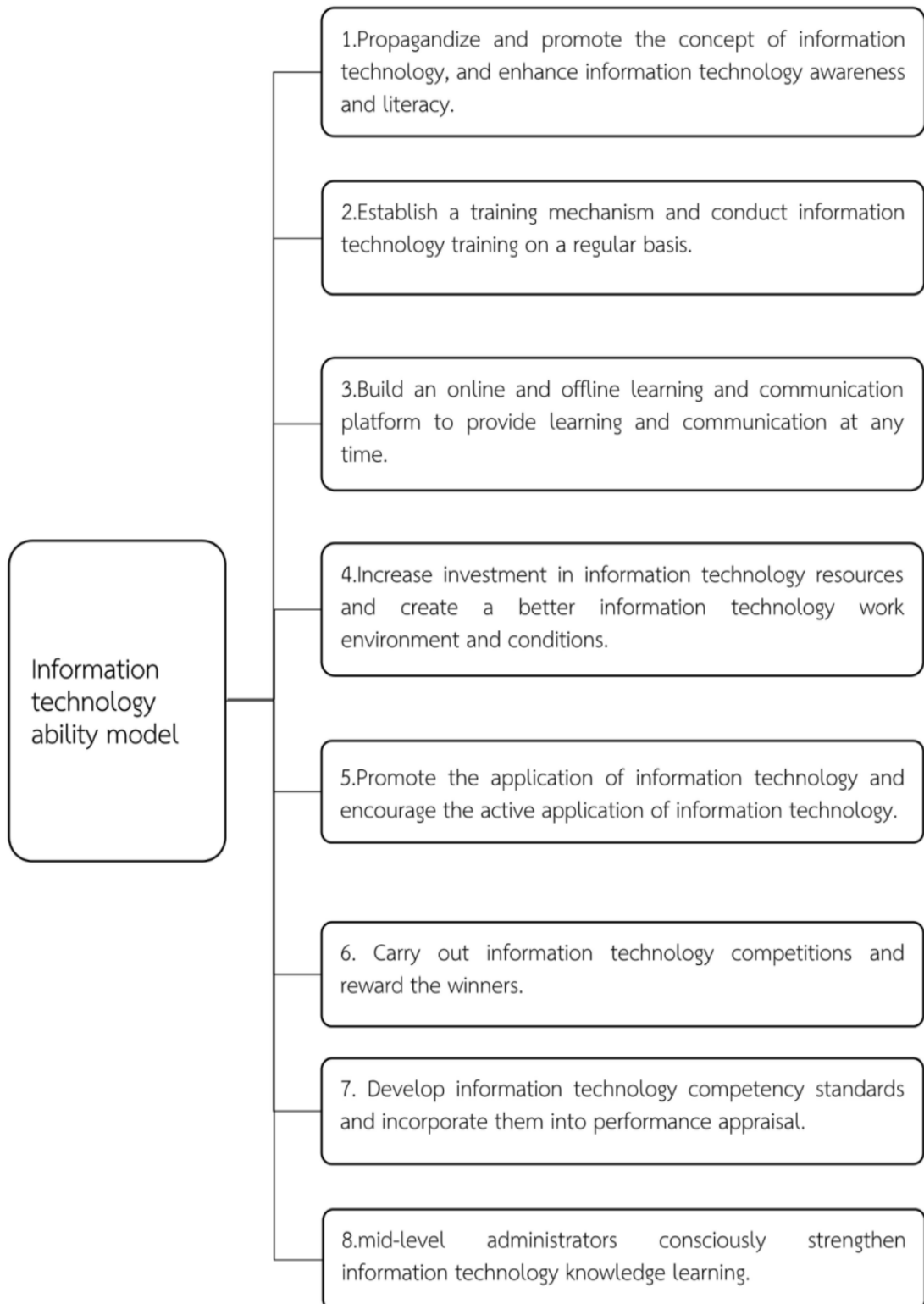
Figure 4.1 Information technology ability model

1.Provide information planning training courses and invite experts to give lectures.

2.Strengthen the top-level design of school information planning to provide reference basis for information planning for mid-level administrators.

3.Organize mid-level administrators to strengthen the learning of the school's philosophy, positioning, and objectives, laying the foundation for clarifying the direction of information planning.

Information planning ability model

4.Strengthen team building, promote information sharing and collaborative work, and improve the overall information planning ability of the team.

5.Establish a performance evaluation mechanism and strengthen the evaluation of information construction in various departments.

6.Ensure investment in training funds and strengthen information planning ability training.

7.Conduct information planning and design competitions to exercise information development trend research and judgment, and information thinking skills.

Figure 4.2 Information planning ability model
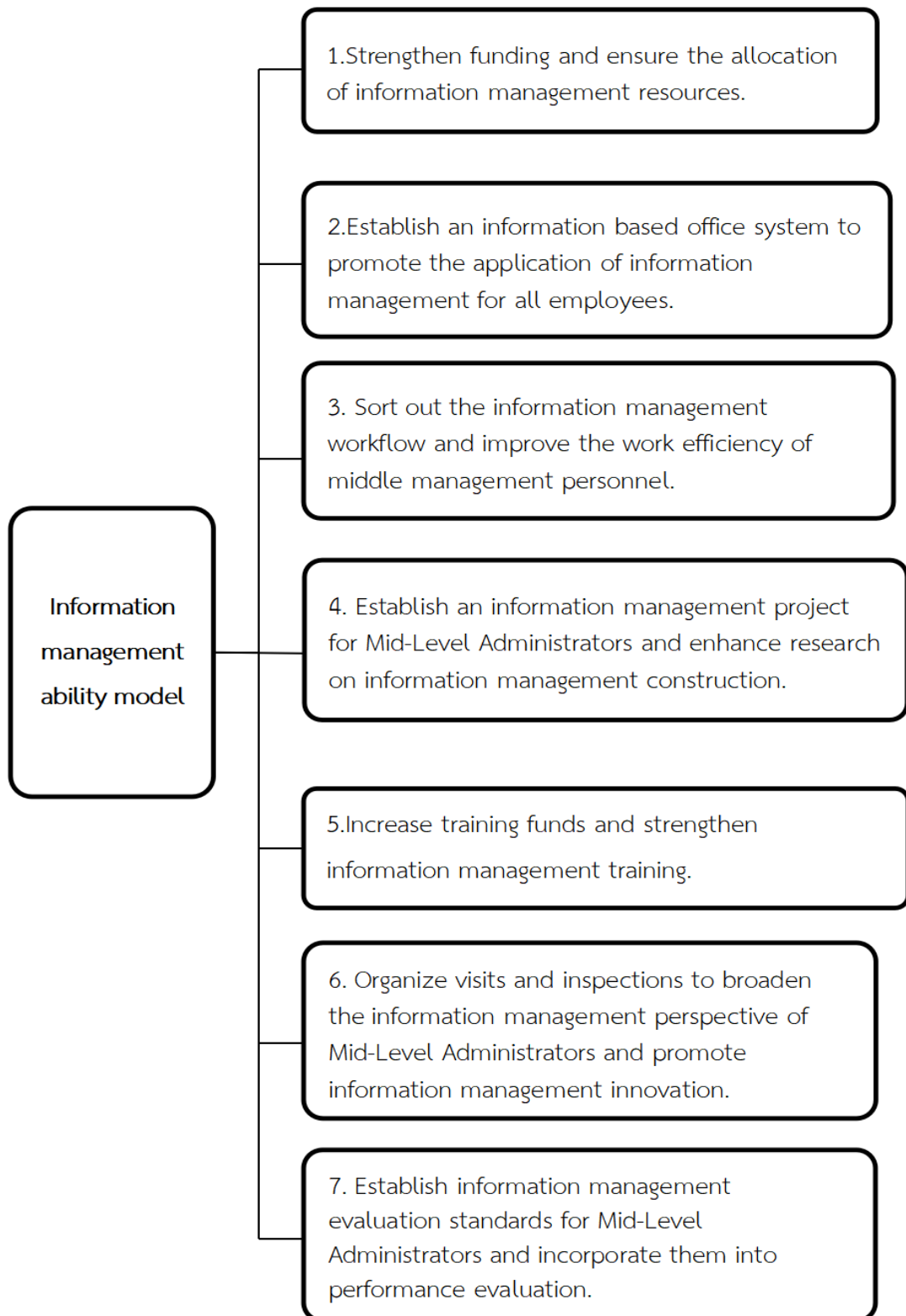
Figure 4.3 Information management ability model
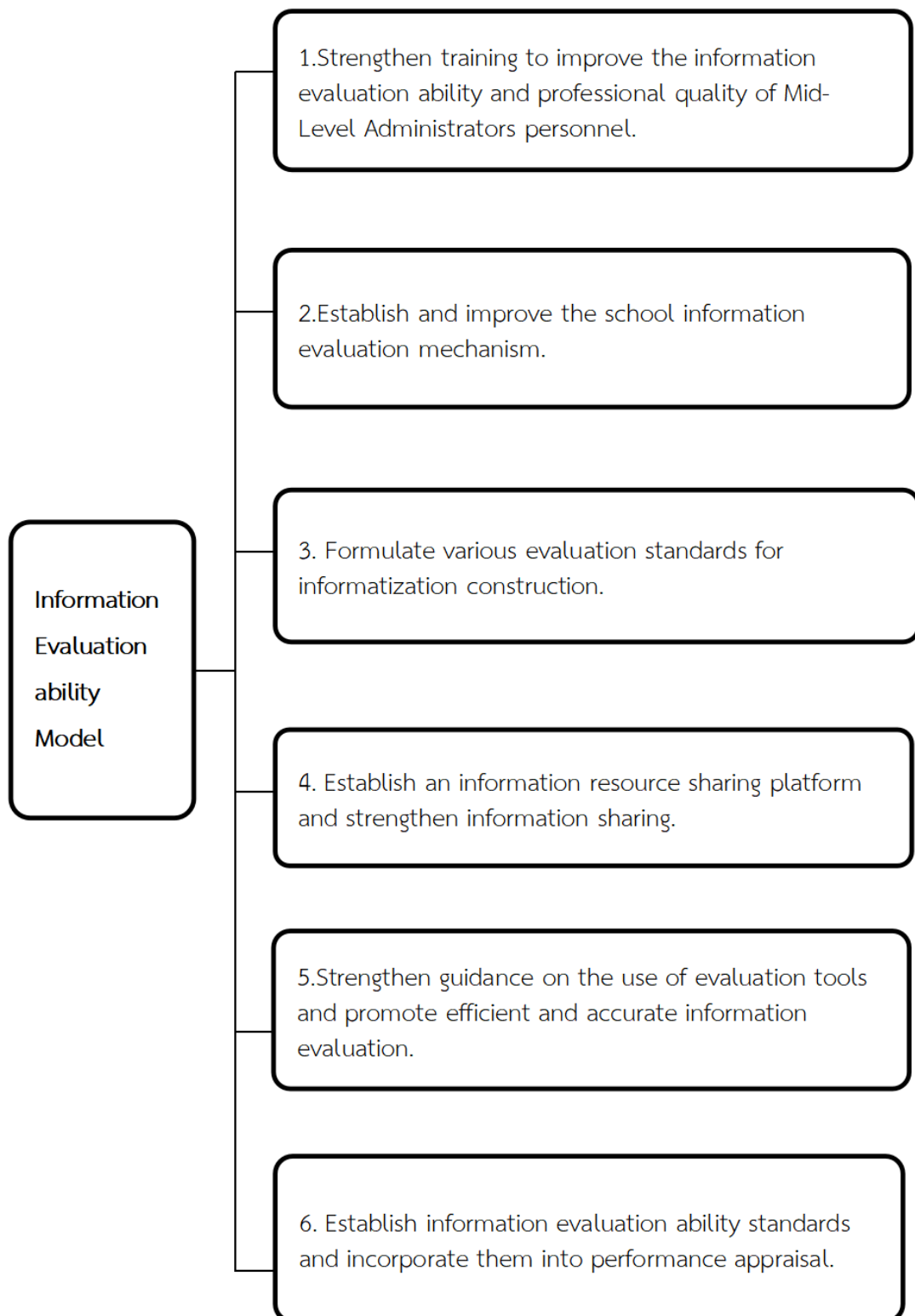
Figure 4.4 Information Evaluation ability Model

According to the interviewees, they put forward suggestions and measures, and summarized the development model of information leadership of middle management in private colleges and universities in Guangxi, which can be divided into four aspects:

Information Technology ability Model：

1. Propagandize and promote the concept of information technology, and enhance information technology awareness and literacy.

2. Establish a training mechanism and conduct information technology training on a regular basis.

3. Build an online and offline learning and communication platform to provide learning and communication at any time.

4. Increase investment in information technology resources and create a better information technology work environment and conditions.

5. Promote the application of information technology and encourage the active application of information technology.

6. Carry out information technology competitions and reward the winners.

7. Develop information technology competency standards and incorporate them into performance appraisal.

8. Mid-Level Administrators personnel consciously strengthen information technology knowledge learning.

Information planning ability model

1. Provide information planning training courses and invite experts to give lectures.

2. Strengthen the top-level design of school information planning to provide reference basis for information planning for Mid-Level Administrators.

3. Organize Mid-Level Administrators personnel to strengthen the learning of the school's philosophy, positioning, and objectives, laying the foundation for clarifying the direction of information planning.

4. Strengthen team building, promote information sharing and collaborative work, and improve the overall information planning ability of the team.

5. Establish a performance evaluation mechanism and strengthen the evaluation of information construction in various departments.

6. Ensure investment in training funds and strengthen information planning ability training.

7. Conduct information planning and design competitions to exercise information development trend research and judgment, and information thinking skills.

Information management ability model

1. Strengthen funding and ensure the allocation of information management resources.

2. Establish an information based office system to promote the application of information management for all employees.

3. Sort out the information management workflow and improve the work efficiency of Mid-Level Administrators.

4. Establish an information management project for Mid-Level Administrators and enhance research on information management construction.

5. Increase training funds and strengthen information management training.

6. Organize visits and inspections to broaden the information management perspective of Mid-Level Administrators and promote information management innovation.

7.Establish information management evaluation standards for Mid-Level Administrators and incorporate them into performance evaluation.

Information Evaluation ability Model

1. Strengthen training to improve the information evaluation ability and professional quality of Mid-Level Administrators personnel.

2. Establish and improve the school information evaluation mechanism.

3. Formulate various evaluation standards for information construction.

4.Establish an information resource sharing platform and strengthen information sharing.

5. Strengthen guidance on the use of evaluation tools and promote efficient and accurate information evaluation.

6. Establish information evaluation ability standards and incorporate them

into performance appraisal.

Research on the Applicability and Possibility of the Information Leadership Development Model for Mid-Level Administrators in Guangxi Private Universities Evaluation Data Analysis

This study invited 5 experts to form an evaluation team to evaluate the applicability and feasibility of the information leadership development model for Mid-Level Administrators in Guangxi private universities. The experts are composed of Mid-Level Administrators from Guangxi private universities with over 10 years of university work experience, master's degree or above, associate professor or above titles. The list is as follows:

Table 4.8 List of Evaluation Experts

Number	professional ranks and titles	Education	Work Years	Work unit
1	Associate professor	Doctor	18	Xiangsihu College of Guangxi University for Nationalities
2	Professor	Master	14	Liuzhou Institute of Technology
3	Professor	Doctor	16	Nanning University
4	Associate professor	Doctor	18	Nanning College of Technology
5	Associate professor	Master	12	Guangxi University of Foreign Languges

Table 4.9 Evaluation Data Analysis

Assessment checklist	Adaptability			Feasibility		
	$\overline{X}$	SD	result	$\overline{X}$	SD	result
Purpose						
1. Information Technology ability Model						
1.1 Propagandize and promote the concept of information technology, and enhance information technology awareness and literacy.	4.20	0.84	High	4.60	0.55	Highest
1.2 Establish a training mechanism and conduct information technology training on a regular basis.	4.80	0.45	Highest	4.80	0.45	Highest
1.3 Build an online and offline learning and communication platform to provide learning and communication at any time.	4.20	0.45	High	4.20	0.45	High
1.4 Increase investment in information technology resources and create a better information technology work environment and conditions.	5.00	0.00	Highest	5.00	0.00	Highest
1.5 Promote the application of information technology and encourage the active application of information technology.	4.20	0.84	High	4.40	0.89	High
1.6 Carry out information technology competitions and reward the winners.	4.20	0.84	High	4.20	0.84	High
1.7 Develop information technology competency standards and incorporate them into performance appraisal.	4.80	0.45	Highest	4.60	0.55	Highest
1.8 Mid-Level Administrators consciously strengthen information	4.40	0.55	High	4.60	0.55	Highest

Assessment checklist	Adaptability			Feasibility		
	$\overline{X}$	SD	result	$\overline{X}$	SD	result
technology knowledge learning.						
Total	4.48	0.55	High	4.55	0.54	Highest
2. Information planning ability model						
2.1 Provide information planning training courses and invite experts to give lectures.	4.40	0.55	High	4.20	0.84	High
2.2 Strengthen the top-level design of school information planning to provide reference basis for information planning for Mid-Level Administrators	4.60	0.55	Highest	4.60	0.55	Highest
2.3 Organize Mid-Level Administrators to strengthen the learning of the school's philosophy, positioning, and objectives, laying the foundation for clarifying the direction of information planning.	4.00	1.00	High	4.60	0.55	Highest
2.4 Strengthen team building, promote information sharing and collaborative work, and improve the overall information planning ability of the team.	4.40	0.89	High	4.40	0.55	High
2.5 Establish a performance evaluation mechanism and strengthen the evaluation of information construction in various departments.	5.00	0.00	Highest	5.00	0.00	Highest
2.6 Ensure investment in training funds and strengthen information planning ability training.	4.80	0.45	Highest	4.60	0.55	Highest
2.7 Conduct information planning and design competitions to exercise information development trend	5.00	0.00	Highest	4.60	0.55	Highest

Assessment checklist	Adaptability			Feasibility		
	$\overline{X}$	SD	result	$\overline{X}$	SD	result
research and judgment, and information thinking skills.						
Total	4.60	0.49	Highest	4.57	0.51	Highest
3.Information management ability						
3.1 Strengthen funding and ensure the allocation of information management resources.	5.00	0.00	Highest	5.00	0.00	Highest
3.2 Establish an information based office system to promote the application of information management for all employees.	4.20	0.84	High	4.40	0.55	High
3.3 Sort out the information management workflow and improve the work efficiency of Mid-Level Administrators.	4.60	0.55	Highest	4.60	0.55	Highest
3.4 Establish an information management project for Mid-Level Administrators and enhance research on information management construction.	4.60	0.55	Highest	4.60	0.55	Highest
3.5 Increase training funds and strengthen information management training.	4.60	0.55	Highest	4.60	0.55	Highest
3.6 Organize visits and inspections to broaden the information management perspective of Mid-Level Administrators and promote information management innovation.	4.80	0.45	Highest	4.80	0.45	Highest
3.7 Establish information management evaluation standards for Mid-Level Administrators and incorporate them	4.20	0.84	High	4.20	0.84	High

Assessment checklist	Adaptability			Feasibility		
	$\overline{X}$	SD	result	$\overline{X}$	SD	result
into performance evaluation.						
Total	4.57	0.54	Highest	4.60	0.50	Highest
4. Information Evaluation ability Model						
4.1 Strengthen training to improve the information evaluation ability and professional quality of Mid-Level Administrators .	4.60	0.55	Highest	4.20	0.84	High
4.2 Establish and improve the school information evaluation mechanism.	5.00	0.00	Highest	5.00	0.00	Highest
4.3 Formulate various evaluation standards for information construction.	4.20	0.84	High	4.20	0.84	High
4.4 Establish an information resource sharing platform and strengthen information sharing.	4.40	0.55	High	4.20	0.84	High
4.5 Strengthen guidance on the use of evaluation tools and promote efficient and accurate information evaluation.	4.80	0.45	Highest	4.80	0.45	Highest
4.6 Establish information evaluation ability standards and incorporate them into performance appraisal.	4.40	0.55	High	4.40	0.55	High
Total	4.57	0.49	Highest	4.47	0.59	High

According to Table 4.9, the adaptability and feasibility of the four models and 28 measures for the information leadership of Mid-Level Administrators in private universities in Guangxi are at a high level. The average value of all applicable items is between 4.00 and 5.00, which is at a very high level, indicating that the applicability of the model is Highest. The average value of all possible items is between 4.20 and 5.00, which is at a high level, indicating that the feasibility of the model is Highest. In the model, the average value of adaptability and feasibility of "increasing investment in information technology resources, creating a better information technology work

environment and conditions", "establishing a performance evaluation mechanism, strengthening the evaluation of information construction in various departments", "strengthening funding investment, ensuring the allocation of information management resources", and "establishing and improving the school information evaluation mechanism" , which is the most adaptability and feasibility four measures.

Chapter 5

Discussion conclusions and Recommendations

The research objectives includes: 1. Study the current situation of Information leadership development of mid-level Administrators in private universities in Guangxi. 2. Study the development model of Information leadership for mid-level Administrators in private universities in Guangxi. 3. Evaluate the applicability of the Information leadership development model for mid-level Administrators in private universities in Guangxi. The detail is as follow:

Conclusion

In this study, "Information Leadership Development Model for mid-level Administrators in Private Universities in Guangxi", the researchers reached the following conclusions.

1. Research on the current situation of Information leadership development of mid-level Administrators in private universities in Guangxi.

1.1 Current situation of Information leadership development of mid-level Administrators in private universities in Guangxi. The average score of respondents' information technology skills, information planning skills, information management skills, and information evaluation skills is between 3-3.5 points. According to the theoretical median, a score higher than 3 but lower than 3.5 is considered moderate, and a score higher than 3.5 is considered high. Therefore, the respondents' information technology ability, information planning ability, information management ability, and information evaluation ability are all at a medium level, indicating that the Information leadership of mid-level Administrators in Guangxi private universities needs to be improved. According to the ranking, the average score of information evaluation ability is the highest ($\bar{X}$ =3.26), followed by information management ability ($\bar{X}$ =3.25), information planning ability ($\bar{X}$ =3.21), and information technology ability ($\bar{X}$ =3.15).

1.2 Information technology ability. The average score for each item of information technology ability is between 2.9 and 3.5 points. According to the theoretical median, scores higher than 3 and lower than 3.5 are intermediate and need to be improved. The scores and rankings of the seven projects are: (1) administrators have the ability to learn and update information technology ($\overline{X}$ =3.25) (2) administrators have the ability to obtain information ($\overline{X}$ = 3.23) (3) administrators have the ability to process information ($\overline{X}$ = 3.20) (4) administrators have the ability to meet work needs ($\overline{X}$ = 3.17) (5) administrators have the ability to integrate information ($\overline{X}$ = 3.15) (6) administrators have information communication skills ($\overline{X}$ = 3.14) (7) administrators have information research skills ($\overline{X}$ = 2.94);

1.3 Current situation of information planning capacity. The average score for each item of information planning ability is between 3 and 3.5 points. According to the theoretical median, a score higher than 3 and lower than 3.5 is considered a medium level and needs to be improved. The scores and rankings of the seven items are: (1) administrators have the ability to scientifically formulate information technology work plans ($\overline{X}$ = 3.30) (2) administrators have the ability to guide information technology planning and design ($\overline{X}$ = 3.28) (3) administrators have the ability to plan for the future of information technology ($\overline{X}$ = 3.24) (4) administrators have the ability to analyze and judge information technology construction policies ($\overline{X}$ = 3.21) (5) administrators have the ability to formulate and organize information planning ($\overline{X}$ = 3.17) (6) administrators have the ability to research and judge information technology development ($\overline{X}$ = 3.14) (7) administrators have the ability to think strategically in information planning ($\overline{X}$ = 3.10);

1.4 Current situation of information management ability. The average score for each item of information management ability is between 3 and 3.5 points. According to the theoretical median, a score of more than 3 but less than 3.5 is considered a medium level and needs to be improved. The scores and rankings of the seven projects are: (1) administrators have the ability to organize and promote teacher information based teaching ($\overline{X}$ = 3.30) (2) administrators have the ability to organize information based training ($\overline{X}$ = 3.28) (3) administrators have the ability to promote information based management ($\overline{X}$ = 3.27) (4) administrators have the ability to

develop information based incentive mechanisms ($\bar{X}$ = 3.25) (5) administrators have the ability to organize and formulate information based rules and regulations ($\bar{X}$ = 3.23) (6) administrators have the ability to optimize the information based learning environment ($\bar{X}$ = 3.22) (7) administrators have the ability to organize information based assessment ($\bar{X}$ = 3.20);

1.5 Current situation of information evaluation ability. The average score for each item of information evaluation ability is between 3 and 3.5 points. According to the theoretical median, a score above 3 and below 3.5 is considered a medium level and needs to be improved. The scores and rankings of the seven items are: (1) administrators have the ability to judge bottlenecks in information construction ($\bar{X}$ = 3.29) (2) administrators have the ability to research the current situation of information technology ($\bar{X}$ = 3.28) (3) administrators have the ability to develop information evaluation mechanisms ($\bar{X}$ = 3.27) (4) administrators have the ability to predict and evaluate information trends ($\bar{X}$ = 3.26) (5) administrators have the ability to evaluate information benefits ($\bar{X}$ = 3.25) (6) administrators have the ability to formulate and adjust Information strategies ($\bar{X}$ = 3.23) (7) administrators have the ability to analyze Information issues ($\bar{X}$ = 3.21);

2. Research on the development model of Information leadership of mid-level Administrators in private universities in Guangxi

Regarding the development model of Information leadership for mid-level Administrators in Guangxi private universities, it can be summarized in four aspects:

Information technology ability model:

(1) Promote information technology concepts and enhance information technology awareness and literacy. (2) Establish a training mechanism and regularly conduct information technology training. (3) Build an online and offline learning and communication platform to provide learning and communication at any time. (4) Increase investment in information technology resources and create a better information technology work environment and conditions. (5) Promote the application of information technology and encourage the active application of information technology. (6) Launch information technology competitions and reward the winners. (7) Develop information technology competency standards and incorporate them into performance evaluations.

(8) Mid-Level Administrators consciously strengthen information technology knowledge learning.

Information planning competency model:

(1) Provide information planning training courses and invite experts to teach. (2) Strengthen the top-level design of school information planning to provide information planning reference for Mid-Level Administrators personnel. (3) Organize Mid-Level Administrators personnel to strengthen the learning of the school's philosophy, orientation, and objectives, laying the foundation for clarifying the direction of information planning. (4) Strengthen team building, promote information sharing and collaborative work, and improve the overall information planning ability of the team. (5) Establish a performance evaluation mechanism and strengthen the evaluation of information construction in various departments. (6) Ensure the investment of training funds and strengthen the training of information planning ability. (7) Conduct information planning and design competitions to exercise information development trend research and judgment, and information thinking skills.

Information management ability model:

(1) Strengthen funding and ensure the allocation of information management resources. (2) Establish an information based office system to promote the application of information management for all employees. (3) Sort out the workflow of information management and improve the work efficiency of Mid-Level Administrators. (4) Establish an information management project for Mid-Level Administrators and enhance research on information management construction. (5) Increase training funds and strengthen information management training. (6) Organize visits and inspections to broaden the information management perspective of Mid-Level Administrators and promote information management innovation. (7) Establish information management evaluation standards for Mid-Level Administrators and incorporate them into performance evaluation.

Information evaluation ability model:

(1) Strengthen training to improve the information evaluation ability and professional literacy of middle level Administrators. (2) Establish and improve the

school information evaluation mechanism. (3) Formulate various evaluation standards for information construction. (4) Establish an information resource sharing platform and strengthen information sharing. (5) Strengthen guidance on the use of evaluation tools and promote efficient and accurate information evaluation. (6) Establish information evaluation ability standards and incorporate them into performance appraisal.

3. Evaluation data analysis

The applicability and possibility of the four models and 28 measures for the information leadership of Mid-Level Administrators in private universities in Guangxi are at a high level. The average value of all applicable items is between 4.00 and 5.00, which is at a very high level, indicating that the applicability of the model is very high. The average value of all possible items is between 4.20 and 5.00, which is at a high level, indicating that the model has a high probability. In the model, the average value of applicability and possibility of "increasing investment in information technology resources, creating a better information technology work environment and conditions", "establishing a performance evaluation mechanism, strengthening the evaluation of information construction in various departments", "strengthening funding investment, ensuring the allocation of information management resources", and "establishing and improving the school information evaluation mechanism" is 5, which is the most applicable and possible four measures.

Discussion

Through a survey of the current situation of information leadership development of Mid-Level Administrators in private universities in Guangxi, it is found that there are various problems in the information leadership of Mid-Level Administrators in private universities in Guangxi in terms of information technology ability, information planning ability, information management ability, and information evaluation ability. After analyzing the average and standard deviation of the above abilities, the ability status is at a medium level and needs further improvement.

Discussion on information technology ability:

Based on the analysis of the results of questionnaires and interviews, the

evaluation of information technology ability of Mid-Level Administrators in private universities in Guangxi is the lowest, and there are many problems. The main manifestations are: Mid-Level Administrators lack awareness of the development trends and requirements of information education management, lack of information awareness, lack of information literacy, poor information technology operation ability, and poor information technology research ability, Lack of enthusiasm for actively learning information technology knowledge. This is consistent with the views put forward by Sun Zhengxiang(2013,72), among others, that management personnel have poor information technology skills, uneven participation, weak ability, and lack of information awareness and technical ability. In response to this issue, this study proposes eight solutions to the information technology ability model, including "promoting information technology concepts, enhancing information technology awareness and literacy", "establishing training mechanisms, conducting information technology training on a regular basis", "promoting information technology applications, and encouraging the active application of information technology" "Consciously strengthening information technology knowledge learning" and other measures are consistent with Zhao Leilei(2017,19)'s viewpoint of carrying out theoretical learning activities for a series of technical knowledge, actively participating in experiential activities for the application of technology information, actively participating in training and learning, and enhancing the awareness of technical analysis.

Discussion on information planning ability:

The questionnaire and interview information show that there are many problems in the information planning ability of Mid-Level Administrators in private universities in Guangxi, such as the lack of top-level design for information construction in the school, the lack of information planning requirements for Mid-Level Administrators in the school, the lack of information planning work pressure on Administrators, and the insufficient ability to study and judge information development trends. This is consistent with Chen Qianhuai(2015)'s view that management personnel lack the ability to plan information, resulting in greater

randomness in school information construction, resulting in resource waste, and inadequate school information rules and regulations. In response to this issue, this study proposes seven solutions to the information planning ability model, including "offering information planning training courses and inviting experts to teach", "strengthening the top-level design of school information planning to provide information planning reference for Mid-Level Administrators personnel", "organizing Mid-Level Administrators personnel to strengthen the learning of school running concepts, school positioning, school running goals, etc., to lay the foundation for clarifying the direction of information planning" Measures such as "establishing a performance evaluation mechanism and strengthening the evaluation of information construction in various departments" are consistent with the ideas proposed by Zheng Luhong(2020,55), such as establishing an information training and learning mechanism, establishing an information efficiency evaluation system, refining departmental work in combination with school running concepts, goal positioning, and formulating departmental information plans.

Discussion on information management ability:

Questionnaire and interview information show that there are problems in the information management ability of Mid-Level Administrators in private universities in Guangxi, which need to be improved. For example, the promotion of information management applications in schools is insufficient, information office systems are not used, information management resources are not invested enough, and information management performance assessments are not conducted. This is consistent with Yuan Juan(2017,15)'s view that there are significant deficiencies in the information management ability and information application ability of management personnel, and there is an urgent need to improve information management ability. This study proposes seven measures for the information management ability model on this issue, including "strengthening funding, ensuring the allocation of information management resources", "establishing an information based office system, promoting the application of information management for all employees", "increasing training funds, strengthening information management training" Measures such as "organizing visits and inspections, broadening the information management perspective of

middle level Administrators, and promoting information management" are consistent with Ren Lingling(2016,61)'s views on increasing school funding, strengthening information resource allocation, organizing training, and formulating information management assessments.

Discussion on information evaluation ability:

According to the questionnaire and interview information, although the information evaluation ability is the highest, it is still only at the medium level, and there are still many problems. For example, the school has not established a complete information evaluation mechanism, has not conducted a standardized evaluation, has not included information evaluation in performance evaluation, has not established an information sharing platform, and Mid-Level Administrators are not familiar with the principles, methods, processes, and work use of information evaluation. In addition, the management personnel proposed by Guo Zhang Yan(2013,72) have insufficient understanding of the construction of information resources, resulting in low application and management efficiency, poor information communication, and ignoring the incentive role of evaluation, Resulting in poor professional development of teacher information. In response to the existing problems, this study proposes six measures for the information evaluation ability model, including "strengthening training, improving the information evaluation ability and professional literacy of middle level Administrators", "establishing and improving the school information evaluation mechanism", "strengthening the guidance on the use of evaluation tools, promoting efficient and accurate information evaluation", and other measures, in line with Sun Zhengxiang(2013,73) proposal to establish and improve the school information evaluation mechanism, Systematically attach importance to and ensure the implementation of information evaluation work, promote the transformation of management concepts, attach importance to information evaluation work and the improvement of information evaluation ability. Schools should strengthen training, improve the information technology application ability and analysis ability of management personnel, and meet the needs of information evaluation work.

Recommendations

Suggestions on the lowest score of the four competency variables of Information leadership for mid-level Administrators in private universities in Guangxi.

1.1 Among the current information technology ability, the average score of "administrators with information research ability" is the lowest. With the continuous development of modern information technology, Information has penetrated into various industries and fields. Education Information is an important way for the development of national education, and information research ability has become a necessary quality for mid-level Administrators in private universities. Improving information research ability can help Mid-Level Administrators better use information technology, improve work efficiency and teaching management level; At the same time, it is helpful for Mid-Level Administrators to understand and grasp the development trend and application prospects of information technology, and to formulate scientific and reasonable development plans for information construction; Thirdly, improving information research ability can also help administrators further understand the difficulties and challenges faced by the development of information technology, recognize the situation, and avoid the wrong direction of information construction.Suggestions: 1. The school should increase research funding, improve research conditions, and provide necessary hardware and software equipment as well as relevant books and materials; Strengthen personnel training and promote the systematic learning of information technology knowledge and skills by Mid-Level Administrators; 3. Strengthen team building, create conditions through forums, seminars, salons, and other forms to enable Mid-Level Administrators to regularly communicate and learn from each other, and create a collective atmosphere of learning and research; 4. Strengthen academic exchanges, and create conditions for the school to organize and select Mid-Level Administrators personnel to participate in relevant academic exchange activities, learn from each other during the exchange, learn from each other's strengths, and improve information technology research ability.

1.2 Among the current status of information planning ability, the lowest average score is "administrators with strategic thinking skills in information planning.".

The ability of strategic thinking in information technology refers to the ability to accurately understand the development trend of information technology, actively respond to the opportunities and challenges brought about by information technology transformation, formulate and implement information technology strategic planning, and use information technology to promote the modernization of school management and improve management efficiency. Information strategic thinking ability is a forward-looking ability that is the basis for Mid-Level Administrators to formulate information construction plans. It is recommended that Mid-Level Administrators personnel improve and strengthen from the following aspects: 1. Pay attention to the forefront of information development through the network, television news, and various information academic exchange activities, and grasp the pulse of the information development era; 2. Through participating in various information technology training, exercise and cultivate the logical direction of information strategic thinking, and enhance the awareness of information strategic thinking; 3. Learn and master the relevant norms, methods, and methods of information planning; 4. Widely pay attention to and collect information related to the development of information technology, accurately grasp the opportunities and challenges faced by the development of information technology, and enhance the ability to research and judge the development of information technology.

1.3 Among the current situation of information management ability, the average score of "organizational Information assessment ability of administrators" is the lowest. The Information assessment ability of mid-level Administrators in private universities includes comprehensive abilities in information technology application, data analysis, teaching management, and disciplines. It is recommended to strengthen improvement through the following aspects: 1. Strengthen the information technology ability of Mid-Level Administrators through self study, practice, training, etc., help administrators master the application methods of office software, network technology, etc., and lay a solid foundation for information assessment work; Actively learn the knowledge and technology of statistical analysis, and master the usage methods of various statistical analysis software systems; 3. Strengthen teaching management and discipline professional level. Only with

relatively good teaching management level and discipline professional knowledge can corresponding information assessment work be carried out well.

1.4 Among the current status of information evaluation ability, the average score of "administrators with information problem analysis ability" is the lowest. The Information problem analysis ability of mid-level Administrators in private universities mainly includes the ability to collect, integrate, analyze, and apply technology. Collect, integrate, analyze, and accurately identify existing problems through technical means, and submit them for final research and resolution. It is recommended to strengthen improvement in the following aspects: 1. Collect comprehensive and extensive information from both internal and external sources, and prepare complete and complete data for the final problem analysis; 2. Pay attention to the classification and integration of collected information, classified analysis and research, and summarize and refine relevant useful information; 3. Develop a list of questions based on the purpose of information problem analysis and provide research screening; 4. Concentrate on the strength and wisdom of teams, colleagues, and peers, discuss and study the exact nature of problem types, and prepare for the research solution.

2. Suggestions on cultivating and improving the Information leadership of mid-level Administrators in Guangxi private Universities.

2.1 Do a good job in the top-level planning and design of Information, including: (1) unified planning and guidance by the Guangxi education administrative department. For example, as the Guangxi education administrative department, it is necessary to incorporate the Information construction of Guangxi private Universities into the overall planning of Guangxi education Information, issue relevant documents on the goals and tasks of Information construction of private Universities, and require all private Universities to implement the requirements uniformly from the top-level. (2) Information construction should be incorporated into the overall development plan of the school. For example, the school should incorporate information construction into the medium and long-term development plan, and make overall requirements from the strategic height of the development of the school's education career, supporting various conditions and safeguards. (3) Develop an information

construction planning plan, such as: based on the overall development plan of the school, combining the school's educational philosophy and objectives, develop a separate information construction planning plan for the school, clarify the goals and tasks, institutional settings, path methods, condition assurance, division of responsibilities, and other contents of the school's information construction in a certain period in the future, and effectively ensure the implementation of the planning plan. (4) The "top notch" project of school Information construction, such as: school Information construction is a huge systematic project that requires a huge amount of funds, full participation, and benefits all teachers and students. It is necessary to implement the "top notch" project system in which the principal is responsible, in order to mobilize the entire school's human, financial, and material resources into the project construction, and ultimately achieve the established goals.

2.2 Financial and policy support for information construction includes: (1) The education department in charge provides financial and policy support to private Universities. As the education department in Guangxi, in addition to incorporating Guangxi private Universities into the overall plan for education information construction in Guangxi, and introducing relevant task requirements for information construction in private Universities, the Guangxi Department of Education also provides corresponding financial and policy support. The construction of school Information is a costly project that cannot be undertaken by private universities alone. The Department of Education can directly allocate a portion of funds to support it, or provide policy support to private universities with good Information construction to enhance enrollment indicators, establish scientific research projects, and evaluate teaching achievements, to encourage private universities to actively carry out Information construction and promote the development of information construction in private universities. (2) Banks provide financial policy support such as low interest loans and installment payments. For example, the Department of Education and the municipal government where the school is located take the lead in contacting relevant banks to cooperate with private Universities. The government provides interest discounts, and banks provide financial preferential policies such as low interest loans and installment payments to help private Universities solve

financial difficulties in campus Information construction. (3) The school shall ensure sufficient special fund investment, such as making sufficient budget for information construction every year to ensure that the funds are fully invested and implemented. (4) Cooperation between schools and enterprises in research and development and joint construction of platforms, such as: cooperation between schools and enterprises, joint investment in the construction of information based campus platforms, mutual benefit according to the agreement of both parties; Or it can be invested and constructed by an enterprise, and the school will provide relevant fees and returns to the enterprise according to the cooperation agreement; Moreover, taking full advantage of the technological advantages of enterprises, schools and enterprises jointly develop information based software systems to save time and cost. (5) Collect alumni donation support, such as making full use of alumni resources, widely publicizing and mobilizing information construction funds, or cooperating with alumni enterprises to build a campus information platform. alumni can contribute to the school, and the school can also provide support for human resource development.

2.3 The establishment of Information platforms includes: (1) the construction of Information and intelligent campus platforms in schools, such as: the investment in the construction of Information and intelligent campus platforms in schools. This is the general trend of education Information, an important guarantee for improving the quality of education and teaching and management level, and also a basic carrier for Mid-Level Administrators to exert Information leadership. Without campus Information, Information leadership would be impossible. (2) The school has built and improved its teaching information management system. The school has made great efforts to build and improve its teaching information management system, which is required to ensure teaching quality and improve the efficiency of teaching management. The central task of the school is teaching, and all teachers can use the teaching management system, from which they can obtain the improvement of information technology ability and the exchange and learning of relevant information resources.(3) The construction and improvement of information based office systems in schools is an important embodiment of integrating with the information age and

improving office efficiency, as well as the comprehensive promotion and popularization of information technology. According to the actual situation of the school, sorting out relevant work processes and forming an information based office system that conforms to the actual situation of the school can greatly improve work efficiency and save office costs. (4) The construction of an information based student management system in schools is an important organizational part of school management. The construction of an information based student management system in schools is not only conducive to the convenient handling of student affairs and improving work efficiency, but also an important way for students to enjoy campus information construction resources and jointly create an information based atmosphere. (5) The school provides software and hardware equipment to meet the needs of information technology work, such as: the school purchases highly configured computers, printers, copiers, various software systems, and provides high-speed and smooth networks for teaching staff that can meet the needs of information technology work.

2.4 The incentive guarantee for information construction system includes: (1) formulating departmental information construction goals and incorporating them into performance assessment. For example, every year, the school sets goals for the Information construction of each department, which are included in the performance evaluation. Encourage Mid-Level Administrators to attach importance to information construction, pay attention to information development, actively participate in information construction work, think about information construction work, plan for information construction development, and enhance information leadership in practice. (2) Formulate Information leadership building standards for Mid-Level Administrators and incorporate them into performance appraisal. The school formulates standards for information based leadership construction for Mid-Level Administrators personnel, and promotes them to learn and improve their abilities in accordance with the standards to meet the leadership standards required by the school. Otherwise, various penalties such as withholding performance funds, restricting rank promotion, and evaluating professional titles can be imposed. Encourage Mid-Level Administrators to take the initiative and do everything possible

to improve their Information leadership.(3) Conduct daily assessments to identify and resolve existing issues in a timely manner. The school irregularly organizes hierarchical evaluation of the effectiveness of Information construction every year, and promptly corrects, rectifies, and solves problems found to avoid waste of Information construction resources. At the same time, use the self inspection and evaluation of the department by Mid-Level Administrators personnel to promote management personnel to improve their Information problem analysis and evaluation ability. (4) Introduce incentives to encourage active participation. For example, the school provides bonus awards, honor recognition, priority for training and further education to departments or individuals that perform well in information construction, to encourage all teaching and administrative staff to actively participate in the school's information construction and strive to improve their own information leadership.

2.5 Strengthen information based leadership training, including: (1) The school prepares and organizes the implementation of an information based leadership training plan for Mid-Level Administrators every year, and the school prepares an information based training plan for Mid-Level Administrators every year to ensure funding for training and ensure class hours, classified training, and hierarchical training. (2) Organize and carry out special training courses for improving the Information leadership of Mid-Level Administrators personnel. Before conducting the training, you can first solicit opinions and customize the training content and courses for the weak points of Information leadership of Mid-Level Administrators personnel in our school. Carrying out special ability improvement training courses is an effective way to quickly improve the Information leadership of Mid-Level Administrators personnel. (3) Conduct daily online and offline training, lectures, and thematic discussions(4) Setting up research projects on Information leadership and conducting research on Information leadership can not only explore effective ways to improve the Information leadership of Mid-Level Administrators through research projects, but also be used for extensive promotion and application in schools to accelerate the improvement of team collective Information leadership. Meanwhile, Mid-Level Administrators participating in the research can also obtain in-depth learning and

thinking from it, Quickly improve their Information leadership level. (5) Organize visits, training, and research. The school organizes more visits, training, and research for Mid-Level Administrators personnel, creating opportunities for Mid-Level Administrators personnel to exchange experiences, learn, and explore with peers, and broaden their horizons. This helps Mid-Level Administrators personnel enhance their information awareness, transform their information based thinking, and clarify the direction and thinking of information based leadership construction.

2.6 Self learning practice improvement includes: (1) enhancing information awareness and literacy, which refers to people's recognition and acceptance of the information age, including the importance, trend, impact, and other aspects of information technology. Mid-Level Administrators should actively strengthen their learning of information knowledge, pay more attention to and browse information technology in their daily lives, and participate in the operational practice and application of information technology in their work. They should constantly enhance their information awareness and literacy, helping them better obtain information, utilize information, and create value. (2) Strengthen active learning of information technology knowledge, establish confidence, firm goals, actively carry out daily learning activities in information technology through learning and understanding of excellent information construction success cases, always pay attention to the development trends and updates of information technology in the information age, actively integrate and embrace the information age, and enhance personal competitiveness in the information age.(3) Actively participate in various training and investigation activities organized by the school. The various information based training and investigation activities organized by the school are a good opportunity for each middle level manager to improve their information leadership. Participating in such activities not only directly can obtain information based knowledge, but more importantly, they can communicate and learn with peers, colleagues, and even other people from all walks of life, making up for their lack of learning and understanding. (4) Strengthen the practical training of Information work. The related work of Information construction is highly operational, and this operation is updated very quickly. It requires Mid-Level Administrators to better master relevant skills and

lay the foundation for other Information ability through continuous operation and practice. (5) Communicate and learn more with colleagues and peers. Everyone's learning understanding is limited. It is necessary to constantly communicate with colleagues and peers to better enlighten their thinking and learn updated information knowledge faster.

Future research

1. In terms of research content, further detailed research can be conducted.

Through a questionnaire survey and analysis of the current situation of Information leadership among mid-level administrator sin Guangxi private universities and interviews with relevant personnel, this article understands the measures to improve the Information leadership ability of mid-level Administrators in Guangxi private universities, and proposes a development model for Information leadership of mid-level Administrators in Guangxi private universities. It has been evaluated by relevant experts, and preliminary research results have been obtained. However, relatively speaking, such research is not in-depth enough, and some content needs to be further studied. For example, the paper mentioned that one measure to improve the Information leadership of mid-level Administrators in Guangxi private Universities is to establish the Information leadership construction standard. This article only mentioned the need to build this standard, in order to facilitate centralized training for Mid-Level Administrators and strengthen their own construction against individual standards, but what is this standard? To what extent? However, there is no research yet. The standards for the Information leadership construction of mid-level Administrators in Guangxi private universities will be the content of my next research.

2. In terms of research objectives, further research can be conducted around the objectives related to this paper.

According to the distributed leadership theory, university leadership can be divided into three levels: school leaders, Mid-Level Administrators, and teachers. This article only studies one of these levels: Mid-Level Administrators. In fact, the exertion of a school's Information leadership is the result of the joint participation of school

leaders, Mid-Level Administrators, and teachers. Without any link of support, the effectiveness of Information leadership cannot be maximized, The next step can be to study the Information leadership of private universities in Guangxi.

3. Comprehensive use of multiple research methods to carry out project research

The main research methods of social science include: investigation and research, literature research, experimental research, case study, observation research, etc. This article mainly uses literature research, questionnaire survey, and interview methods to conduct research. The application of research methods is relatively simple, lacking the field investigation method, case study, observation research, and other methods in investigation and research methods, and the accuracy, comprehensiveness, and completeness of the collected data are lacking, In the next step, I will strengthen the study of various other research methods, comprehensively apply the mastered research methods to future research projects, and strive to produce better research results.

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Appendixes

Appendix A

List of Specialists and Letters of Specialists

Invitation

for IOC Verification

List of experts in survey tools

1.   Zhang Jinqing Professor of Guangxi Minzu University.

2.   Zhou Lihua Professor of Guangxi Minzu University.

3.   Xiong Xiaomei Professor of Nanning Normal University.

4.   He.Yuehua.Associate.Professor.of.Guangxi.University.of.Science.and .Technology.

5.   Huang.Yanqiong.Associate.Professor.of.Nanning.University.

Appendix B

Official Letter

ที่ อว ๐๖๔๓.๑๔/๔๗๐

มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา
๑๐๖๑ อิสรภาพ ๑๕ แขวงหิรัญรูจี
เขตธนบุรี กรุงเทพฯ ๑๐๖๐๐

๑๓ มีนาคม ๒๕๖๖

เรื่อง เชิญเป็นผู้เชี่ยวชาญตรวจสอบความตรงเชิงเนื้อหาเครื่องมือในการทำวิทยานิพนธ์

เรียน Professor Zhang Jinqing, Guangxi Minzu University

สิ่งที่ส่งมาด้วย ๑. เค้าโครงวิทยานิพนธ์ จำนวน ๑ เล่ม
๒. แบบสอบถาม จำนวน ๑ ชุด

เนื่องด้วย Mr.Li Linwei นักศึกษาระดับบัณฑิตศึกษา หลักสูตรครุศาสตรดุษฎีบัณฑิต สาขาวิชาการ
บริหารการศึกษา มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา ได้รับการอนุมัติให้ดำเนินการวิจัยวิทยานิพนธ์
เรื่อง "The Model for Development of Informatization Leadership of Mid-Level Administrators
in Private Colleges and Universities in Guangxi" โดยมีคณะกรรมการที่ปรึกษาวิทยานิพนธ์ ดังนี้

๑. ผู้ช่วยศาสตราจารย์ ดร.พัชรา เดชโฮม   ประธานที่ปรึกษาหลัก
๒. รองศาสตราจารย์ ดร.นิรันดร์ สุธีนิรันดร์   อาจารย์ที่ปรึกษาร่วม
๓. รองศาสตราจารย์ ดร.จิตตวิสุทธิ์ วิมุตติปัญญา   อาจารย์ที่ปรึกษาร่วม

ในการทำวิทยานิพนธ์ครั้งนี้ นักศึกษาจำเป็นต้องตรวจสอบความตรงเชิงเนื้อหา (Content Validity)
ของเครื่องมือ เพื่อให้ได้เครื่องมือที่สมบูรณ์ที่สุด ทางบัณฑิตวิทยาลัยได้พิจารณาเห็นว่าท่านเป็นผู้ทรงคุณวุฒิ มี
ความรู้ความสามารถสอดคล้องกับหัวข้อการทำวิทยานิพนธ์ ดังกล่าวเป็นอย่างยิ่ง ซึ่งคำแนะนำของท่านจะเกิด
ประโยชน์ต่อการปรับปรุงแก้ไขในการสร้างเครื่องมือสำหรับการวิจัยของนักศึกษาให้มีคุณภาพและเหมาะสม
เพื่อใช้ในการเก็บรวบรวมข้อมูลในการวิจัยต่อไป

จึงเรียนมาเพื่อโปรดพิจารณาให้ความอนุเคราะห์แก่นักศึกษาด้วยจะเป็นพระคุณยิ่ง

ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์ ดร.คณกร สว่างเจริญ)
คณบดีบัณฑิตวิทยาลัย

งานประสานบัณฑิตศึกษา
โทร ๐-๒๔๗๓-๗๐๐๐ ต่อ ๑๘๑๔

ที่ อว ๐๖๔๓.๑๔/๕๗๑

มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา
๑๐๖๑ อิสรภาพ ๑๕ แขวงหิรัญรูจี
เขตธนบุรี กรุงเทพฯ ๑๐๖๐๐

๑๓ มีนาคม ๒๕๖๖

เรื่อง เชิญเป็นผู้เชี่ยวชาญตรวจสอบความตรงเชิงเนื้อหาเครื่องมือในการทำวิทยานิพนธ์

เรียน Professor Zhou Lihua, Guangxi Minzu University

สิ่งที่ส่งมาด้วย ๑. เค้าโครงวิทยานิพนธ์ จำนวน ๑ เล่ม
               ๒. แบบสอบถาม   จำนวน ๑ ชุด

       เนื่องด้วย Mr.Li Linwei นักศึกษาระดับบัณฑิตศึกษา หลักสูตรครุศาสตรดุษฎีบัณฑิต สาขาวิชาการ
บริหารการศึกษา มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา ได้รับการอนุมัติให้ดำเนินการวิจัยวิทยานิพนธ์
เรื่อง "The Model for Development of Informatization Leadership of Mid-Level Administrators
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       ๑. ผู้ช่วยศาสตราจารย์ ดร.พัชรา เดชโฮม   ประธานที่ปรึกษาหลัก
       ๒. รองศาสตราจารย์ ดร.นิรันดร์ สุธีนิรันดร์   อาจารย์ที่ปรึกษาร่วม
       ๓. รองศาสตราจารย์ ดร.จิตตวิสุทธิ์ วิมุตติปัญญา   อาจารย์ที่ปรึกษาร่วม

       ในการทำวิทยานิพนธ์ครั้งนี้ นักศึกษาจำเป็นต้องตรวจสอบความตรงเชิงเนื้อหา (Content Validity)
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มีความรู้ความสามารถสอดคล้องกับหัวข้อการทำวิทยานิพนธ์ ดังกล่าวเป็นอย่างยิ่ง ซึ่งคำแนะนำของท่านจะ
เกิดประโยชน์ต่อการปรับปรุงแก้ไขในการสร้างเครื่องมือสำหรับการวิจัยของนักศึกษาให้มีคุณภาพและ
เหมาะสมเพื่อใช้ในการเก็บรวบรวมข้อมูลในการวิจัยต่อไป

       จึงเรียนมาเพื่อโปรดพิจารณาให้ความอนุเคราะห์แก่นักศึกษาด้วยจะเป็นพระคุณยิ่ง

ขอแสดงความนับถือ

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คณบดีบัณฑิตวิทยาลัย

งานประสานบัณฑิตศึกษา
โทร ๐-๒๔๗๓-๗๐๐๐ ต่อ ๑๘๑๔

ที่ อว ๐๖๔๓.๑๔/๕๗๖

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๓ มีนาคม ๒๕๖๖

เรื่อง   เชิญเป็นผู้เชี่ยวชาญตรวจสอบความตรงเชิงเนื้อหาเครื่องมือในการทำวิทยานิพนธ์

เรียน Professor Xiong Xiaomei, Nanning Normal University

สิ่งที่ส่งมาด้วย   ๑. เค้าโครงวิทยานิพนธ์   จำนวน ๑ เล่ม
                 ๒. แบบสอบถาม   จำนวน ๑ ชุด

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          ๑. ผู้ช่วยศาสตราจารย์ ดร.พัชรา เดชโฮม   ประธานที่ปรึกษาหลัก
          ๒. รองศาสตราจารย์ ดร.นิรันดร์ สุธีนิรันดร์   อาจารย์ที่ปรึกษาร่วม
          ๓. รองศาสตราจารย์ ดร.จิตตวิสุทธิ์ วิมุตติปัญญา อาจารย์ที่ปรึกษาร่วม

          ในการทำวิทยานิพนธ์ครั้งนี้ นักศึกษาจำเป็นต้องตรวจสอบความตรงเชิงเนื้อหา (Content Validity)
ของเครื่องมือ เพื่อให้ได้เครื่องมือที่สมบูรณ์ที่สุด ทางบัณฑิตวิทยาลัยได้พิจารณาเห็นว่าท่านเป็นผู้ทรงคุณวุฒิ มี
ความรู้ความสามารถสอดคล้องกับหัวข้อการทำวิทยานิพนธ์ ดังกล่าวเป็นอย่างยิ่ง ซึ่งคำแนะนำของท่านจะเกิด
ประโยชน์ต่อการปรับปรุงแก้ไขในการสร้างเครื่องมือสำหรับการวิจัยของนักศึกษาให้มีคุณภาพและเหมาะสม
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ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์ ดร.คณกร สว่างเจริญ)
คณบดีบัณฑิตวิทยาลัย

งานประสานบัณฑิตศึกษา
โทร ๐-๒๔๗๓-๗๐๐๐ ต่อ ๑๘๑๔

ที่ อว ๐๖๔๓.๑๔/๘๗๓

มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา
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๑๓ มีนาคม ๒๕๖๖

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เรียน Associate Professor He Yuehua, Guangxi University of Science and Technology

สิ่งที่ส่งมาด้วย   ๑. เค้าโครงวิทยานิพนธ์   จำนวน ๑ เล่ม
                     ๒. แบบสอบถาม   จำนวน ๑ ชุด

        เนื่องด้วย Mr.Li Linwei นักศึกษาระดับบัณฑิตศึกษา หลักสูตรครุศาสตรดุษฎีบัณฑิต สาขาวิชาการ
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        ๑. ผู้ช่วยศาสตราจารย์ ดร.พัชรา เดชโฮม   ประธานที่ปรึกษาหลัก
        ๒. รองศาสตราจารย์ ดร.นิรันดร์ สุธีนิรันดร์   อาจารย์ที่ปรึกษาร่วม
        ๓. รองศาสตราจารย์ ดร.จิตตวิสุทธิ์ วิมุตติปัญญา อาจารย์ที่ปรึกษาร่วม

        ในการทำวิทยานิพนธ์ครั้งนี้ นักศึกษาจำเป็นต้องตรวจสอบความตรงเชิงเนื้อหา (Content Validity)
ของเครื่องมือ เพื่อให้ได้เครื่องมือที่สมบูรณ์ที่สุด ทางบัณฑิตวิทยาลัยได้พิจารณาเห็นว่าท่านเป็นผู้ทรงคุณวุฒิ มี
ความรู้ความสามารถสอดคล้องกับหัวข้อการทำวิทยานิพนธ์ ดังกล่าวเป็นอย่างยิ่ง ซึ่งคำแนะนำของท่านจะเกิด
ประโยชน์ต่อการปรับปรุงแก้ไขในการสร้างเครื่องมือสำหรับการวิจัยของนักศึกษาให้มีคุณภาพและเหมาะสม
เพื่อใช้ในการเก็บรวบรวมข้อมูลในการวิจัยต่อไป

        จึงเรียนมาเพื่อโปรดพิจารณาให้ความอนุเคราะห์แก่นักศึกษาด้วยจะเป็นพระคุณยิ่ง

ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์ ดร.คณกร สว่างเจริญ)
คณบดีบัณฑิตวิทยาลัย

งานประสานบัณฑิตศึกษา
โทร ๐-๒๔๗๓-๗๐๐๐ ต่อ ๑๘๑๔

ที่ อว ๐๖๔๓.๑๔/๘๗๘

มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา
๑๐๖๑ อิสรภาพ ๑๕ แขวงหิรัญรูจี
เขตธนบุรี กรุงเทพฯ ๑๐๖๐๐

๑๓ มีนาคม ๒๕๖๖

เรื่อง เชิญเป็นผู้เชี่ยวชาญตรวจสอบความตรงเชิงเนื้อหาเครื่องมือในการทำวิทยานิพนธ์

เรียน Associate Professor Huang Yanqiong, Nanning University

สิ่งที่ส่งมาด้วย ๑. เค้าโครงวิทยานิพนธ์ จำนวน ๑ เล่ม
 ๒. แบบสอบถาม จำนวน ๑ ชุด

เนื่องด้วย Mr.Li Linwei นักศึกษาระดับบัณฑิตศึกษา หลักสูตรครุศาสตรดุษฎีบัณฑิต สาขาวิชาการ
บริหารการศึกษา มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา ได้รับการอนุมัติให้ดำเนินการวิจัยวิทยานิพนธ์
เรื่อง "The Model for Development of Informatization Leadership of Mid-Level Administrators
in Private Colleges and Universities in Guangxi" โดยมีคณะกรรมการที่ปรึกษาวิทยานิพนธ์ ดังนี้

 ๑. ผู้ช่วยศาสตราจารย์ ดร.พัชรา เดชโฮม ประธานที่ปรึกษาหลัก
 ๒. รองศาสตราจารย์ ดร.นิรันดร์ สุธีนิรันดร์ อาจารย์ที่ปรึกษาร่วม
 ๓. รองศาสตราจารย์ ดร.จิตตวิสุทธิ์ วิมุตติปัญญา อาจารย์ที่ปรึกษาร่วม

ในการทำวิทยานิพนธ์ครั้งนี้ นักศึกษาจำเป็นต้องตรวจสอบความตรงเชิงเนื้อหา (Content Validity)
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ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์ ดร.คณกร สว่างเจริญ)
คณบดีบัณฑิตวิทยาลัย

งานประสานบัณฑิตศึกษา
โทร ๐-๒๔๗๓-๗๐๐๐ ต่อ ๑๘๑๔

Appendix C

Research Instrument

Research questionnaire

Subject: Current Situation of Information Leadership of Middle Level Administrators in Private Universities in Guangxi

…………………………………………………………………………

Clarification：

1.　This survey hopes to understand the development status of Information leadership of middle-level administrators in private Universities in Guangxi. Please fill in truthfully and tick　√　in the corresponding box according to your own actual situation.

2.　Select 1 for "completely disagree", 2 for "relatively disagree", 3 for "generally agree", 4 for "relatively agree", and 5 for "fully agree".

3.　The questionnaire is conducted anonymously. There is no right or wrong answer and it is only used for research. The true and complete information you provided is the key to ensure the reliability of this investigation. The information you provide will be kept strictly confidential. Thank you for your cooperation!

Thank you very much for your help.

Mr Li Linwei

Doctoral student in Educational Administration

Bansomdejchaopraya Rajabhat University

Part I: Respondent Status (Personal Information)

problem
1.Gender (1) male   (2) female
2. Age (1) 26 to 35 (2) 36 to 45 (3) 46 to 55 (4) 56 years old or up
3.Education (1) Junior College (2) Bachelor degree (3) A master's degree (4) Doctoral degree
5. Position (1) No title (2) Teaching assistant (3) The lecturer or Assistant Professor (4) Associate professor (5) Professor
6. Experience (1) within 5 year (2) 5 to 10 years (3) 11 to 15 years (4) More than 15 years

Part II: Personal information leadership of middle dministrators

NO	Information Leadership	5	4	3	2	1
Information technology ability						
1	Administrators have the ability of information acquisition					
2	Administrators have the ability of information processing					
3	Administrators have the ability of information integration					
4	Administrators have the ability of information exchange					
5	Administrators have the ability of information					
6	Administrators have the ability to learn and update information technology					
7	Administrators have the information technology ability to achieve the work					
Information planning ability						
1	Administrators have the ability of analyze study and judge the information					
2	Administrators have the ability to scientifically formulate information technology work					
3	Administrators have the ability to plan and organize information					
4	Administrators have the ability to guide information planning and design					
5	Administrators have the strategic thinking ability of information planning					
6	Administrators have the ability to study and judge information technology development					

NO	Information Leadership	5	4	3	2	1
7	Administrators have the ability of Information vision planning					
Information management ability						
1	1.Administrators promote teachers' information teaching ability in an organized way					
2	2.Administrators have the ability to organize information training					
3	3.Administrators have the ability to organize the formulation of information rules and					
4	Administrators have the ability to optimize the information learning environment					
5	Administrators have the ability to promote information management					
6	Administrators have the ability to develop information incentive mechanism					
7	Administrator have the ability to organize information assessment					
Information evaluation ability						
1	Administrator have the ability to analyze information problems					
2	Administrator have the ability to formulate information evaluation mechanism					
3	Administrator have the ability to research the status quo of Information					
4	Administrator have the ability to formulate information strategy adjustment					
5	Administrator have the ability to evaluate the information benefits					

NO	Information Leadership	5	4	3	2	1
6	Administrator have the ability to judge the bottleneck of information construction					
7	Administrator have the ability to predict and evaluate the information trend					

Appendix D

The Results of the Quality Analysis of

Research Instruments

Research instrument consistency index（IOC）

Information Leadership Training Model for Middle Level Administrator **in Guangxi Private Universities**

Clause	The Model for Development of Information Leadership of Mid-Level Administrators Private Universities inGuangxi	Experts					IOC	result
		1	2	3	4	5		
Information technology ability								
1	Administrators have the ability of information acquisition	1	1	1	1	1	1.00	valid
2	Administrators have the ability of information processing	1	1	1	1	1	1.00	valid
3	Administrators have the ability of information integration	1	1	1	1	1	1.00	valid
4	Administrators have the ability of information exchange	1	1	1	1	1	1.00	valid
5	Administrators have the ability of information	1	1	1	1	1	1.00	valid
6	Administrators have the ability to learn and update information technology	1	1	1	1	1	1.00	valid
7	Administrators have the information technology ability to achieve the work	1	1	1	1	1	1.00	valid
Information planning ability								
1	Administrators have the ability of analyze study and judge the information	1	1	1	1	1	1.00	valid

| Clause | The Model for Development of Information Leadership of Mid-Level Administrators Private Universities inGuangxi | Experts | | | | | IOC | result |
		1	2	3	4	5		
2	Administrators have the ability to scientifically formulate information technology work	1	1	1	1	1	1.00	valid
3	Administrators have the ability to plan and organize information	1	1	1	1	1	1.00	valid
4	Administrators have the ability to guide information planning and design	1	1	1	1	1	1.00	valid
5	Administrators have the strategic thinking ability of information planning	1	1	1	1	1	1.00	valid
6	Administrators have the ability to study and judge information technology development	1	1	1	1	1	1.00	valid
7	Administrators have the ability of Information vision planning	1	1	1	1	1	1.00	valid
Information management ability								
1	Administrators promote teachers' information teaching ability in an organized way	1	1	1	1	1	1.00	valid
2	Administrators have the ability to organize information training	1	1	1	1	1	1.00	valid
3	Administrators have the ability to organize the formulation of information rules and	1	1	1	1	1	1.00	valid

Clause	The Model for Development of Information Leadership of Mid-Level Administrators Private Universities inGuangxi	Experts					IOC	result
		1	2	3	4	5		
4	Administrators have the ability to optimize the information learning environment	1	1	1	1	1	1.00	valid
5	Administrators have the ability to promote information management	1	1	1	1	1	1.00	valid
6	Administrators have the ability to develop information incentive mechanism	1	1	1	1	1	1.00	valid
7	Administrator have the ability to organize information assessment	1	1	1	1	1	1.00	valid
Information evaluation ability								
1	Administrator have the ability to analyze information problems	1	1	1	1	1	1.00	valid
2	Administrator have the ability to formulate information evaluation mechanism	1	1	1	1	1	1.00	valid
3	Administrator have the ability to research the status quo of Information	1	1	1	1	1	1.00	valid
4	Administrator have the ability to formulate information strategy adjustment	1	1	1	1	1	1.00	valid
5	Administrator have the ability to evaluate the information benefits	1	1	1	1	1	1.00	valid

Clause	The Model for Development of Information Leadership of Mid-Level Administrators Private Universities inGuangxi	Experts					IOC	result
		1	2	3	4	5		
6	Administrator have the ability to judge the bottleneck of information construction	1	1	1	1	1	1.00	valid
7	Administrator have the ability to predict and evaluate the information trend	1	1	1	1	1	1.00	valid

Reliability analysis of research instruments

Results of variable reliability correlation analysis

Reliability

Scale: all variables

Case handling summary			
		N	%
case	effective	254	100.0
	Excluded[a]	0	.0
	Total	254	100.0
a. List deletion based on all variables in this program.			

Reliability statistics		
Cronbach's Alpha	Based on standardized items Cronbachs Alpha	number of terms
.955	.965	28

Interview form

Research Title：

The Model for Development of Information Leadership of

Mid-Level Administrators Private Universities in Guangxi

Interview question
1.What good suggestions do you have for improving the information technology ability, information planning ability, information management ability, and information evaluation ability of Mid-Level Administrators personnel in the school?
2.What do you think are the factors that affect and restrict the information leadership construction of Mid-Level Administrators personnel in our university? What kind of solution suggestions do you have?
3.What measures has your school taken to improve the information leadership of middle level cadres? What aspects do you think need to be improved, and what specific comments and suggestions do you have?
4.What effective measures do you think should be taken to improve the information leadership of Mid-Level Administrators in private universities in Guangxi?

List of interview					
No	Name	Education	Title Job	Work Years	Work Unit
1	Li Qingnian	Master	Mid-Level Administrators	15	Nanning University
2	Zeng Yangyang	Master	Mid-Level Administrators	7	Guangxi University of Foreign Languges
3	Liang Hanghang	Master	Mid-Level Administrators	8	Guangxi City Vocational University
4	baibing	Doctor	Mid-Level Administrators	12	Xiangsihu College of Guangxi University for Nationalities
5	Huang Xuezheng	Master	Mid-Level Administrators	8	Faculty of Chinese Medicine Science Guangxi University of Chinese Medicine
6	Xiong Jianwen	Master	Mid-Level Administrators	16	Liuzhou Institute of Technology
7	Xu Qi	Doctor	Mid-Level Administrators	18	Guilin Institute of Information Technology
8	Wang Rui	Master	Mid-Level Administrators	17	Guilin University
9	Li Meiyan	Master	Mid-Level Administrators	11	Nanning College of Technology
10	Ban Mei	Master	Mid-Level Administrators	12	Beihai University of Ard Design
11	Ye Dong	Master	Mid-Level Administrators	8	Shiyuan Colege of Nanning Normal University

Pattern evaluation form

Evaluation Questionnaire on Information Leadership Development Model of Middle Level Administrators in Guangxi Private Universities

Clarification

1. The tool used this time is a questionnaire to evaluate the cultivation mode of Information leadership of middle level administrators in Guangxi private universities.

2. Please fully consider and evaluate the applicability and feasibility of the Information leadership training model for middle level administrators in private universities in Guangxi.

3. Please check each comment box. The score is as follows:

5 indicates the most applicable/possible

4 indicates high applicability/high possibility

3 indicates the applicable/moderate possibility

2 indicates low applicability/possibility

1 indicates the least applicability/possibility

Very grateful for your help.

Assessment checklist	Adaptability					Feasibility				
	1	2	3	4	5	1	2	3	4	5
Purpose										
1. Information Technology ability Model										
1.1 Propagandize and promote the concept of information technology, and enhance information technology awareness and literacy.										
1.2 Establish a training mechanism and conduct information technology training on a regular basis.										
1.3 Build an online and offline learning and communication platform to provide learning and communication at any time.										
1.4 Increase investment in information technology resources and create a better information technology work environment and conditions.										
1.5 Promote the application of information technology and encourage the active application of information technology.										
1.6 Carry out information technology competitions and reward the winners.										
1.7 Develop information technology competency standards and incorporate them into performance appraisal.										
1.8 Mid-Level Administrators personnel consciously strengthen information technology knowledge learning.										
Total										

Assessment checklist	Adaptability					Feasibility				
	1	2	3	4	5	1	2	3	4	5
2. Information planning ability model										
2.1 Provide information planning training courses and invite experts to give lectures.										
2.2 Strengthen the top-level design of school information planning to provide reference basis for information planning for Mid-Level Administrators										
2.3 Organize Mid-Level Administrators personnel to strengthen the learning of the school's philosophy, positioning, and objectives, laying the foundation for clarifying the direction of information planning.										
2.4 Strengthen team building, promote information sharing and collaborative work, and improve the overall information planning ability of the team.										
2.5 Establish a performance evaluation mechanism and strengthen the evaluation of information construction in various departments.										
2.6 Ensure investment in training funds and strengthen information planning ability training.										
2.7 Conduct information planning and design competitions to exercise information development trend research and judgment, and information thinking skills.										
Total										
3.Information management ability										
3.1 Strengthen funding and ensure the allocation of information management										

Assessment checklist	Adaptability					Feasibility				
	1	2	3	4	5	1	2	3	4	5
resources.										
3.2 Establish an information based office system to promote the application of information management for all employees.										
3.3 Sort out the information management workflow and improve the work efficiency of Mid-Level Administrators.										
3.4 Establish an information management project for Mid-Level Administrators and enhance research on information management construction.										
3.5 Increase training funds and strengthen information management training.										
3.6 Organize visits and inspections to broaden the information management perspective of Mid-Level Administrators and promote information management innovation.										
3.7 Establish information management evaluation standards for Mid-Level Administrators and incorporate them into performance evaluation.										
Total										
4.Information Evaluation ability Model										
4.1 Strengthen training to improve the information evaluation ability and professional quality of Mid-Level Administrators personnel.										
4.2 Establish and improve the school information evaluation mechanism.										
4.3 Formulate various evaluation standards for information construction.										

Assessment checklist	Adaptability					Feasibility				
	1	2	3	4	5	1	2	3	4	5
4.4 Establish an information resource sharing platform and strengthen information sharing.										
4.5 Strengthen guidance on the use of evaluation tools and promote efficient and accurate information evaluation.										
4.6 Establish information evaluation ability standards and incorporate them into performance appraisal.										

List of Model Evaluation Experts

No.	Name	Title.	Education	Work Years	Work unit
1	Li YuXiong	Associate professor	Doctor	18	Xiangsihu College of Guangxi University for Nationalities
2	Hu ang Ha n	Professor	Master	14	Liuzhou Institute of Technology
3	Shen Yi Min	Professor	Doctor	16	Nanning University
4	Zhai Jing Wei	Associate professor	Doctor	18	Nanning College of Technology
5	Yan Hui	Associate professor	Master	12	Guangxi University of Foreign Languges

Appendix E

Certificate of English

Bansomdejchaopraya Rajabhat University

This is to certify that

MR. LI LINWEI

Achieved BSRU-TEST of English Proficiency (BSRU – TEP) level

C 1

Given on 20th January 2020

Linda Gainma

(Assistant Professor Dr. Linda Gainma)

President

Appendix F

The Document for Acceptance Research

Researcher Profile

Acceptance Letter

Dear Author(s): **Li Linwei , Patchara Dechhome**

Paper ID	JSFS_84
Paper Title	The Model for Development of Information Leadership of Mid-Level Administrators in Private Universities in Guangxi

This is to enlighten you that above manuscript reviewed and appraised by the review committee members of **BioLEAGUES** and it is accepted for the purpose of publication in the **"Journal of Survey in Fisheries Sciences"**.
You have to send following documents at swathi.p@bioleagues.net before 18th April 2023.

1. **Proof of Registration/Payment - Scanned | Online Received Email**
2. **BioLEAGUES Copyright form** https://bioleagues.com/copyright/

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2. **Journal of Survey in Fisheries Sciences is** a SCOPUS Indexed Q3 Journal.
3. Author(s) will receive Publication information and Published Paper link through **BioLEAGUES**
4. You will receive Volume/ Issue information of your paper very soon.
5. It is mandatory to submit the copyright form before the article gets processed for final publication.
6. **Indexing belongs to Scopus database, No Involvement of BioLEAGUES.**

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Title: Director of the Asset Management Division of Nanning University (Associate professor)

Educational background:

- 1997-2001 Bachelor of Management (Archives), Guangxi University for Nationalities

- 2011-2013 Graduate Student of Guangxi Normal University (Ideological and Political Education)

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