

Model for improving the information leadership of middle level administrators universities of Guangxi

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Abstract

The objectives of this research were 1) to study analyze the current situation of information leadership of middle level administrators universities of Guangxi, 2) to study provide development model to improve the information leadership of middle level administrators universities of Guangxi, and 3) to evaluate the suitability and feasibility of model for information leadership development of middle level administrators universities of Guangxi were including 5 following aspects: 1) Visionary leadership, 2) Digital age learning culture, 3) Excellence in professional practice, 4) Systematic improvement and 5) Digital citizenship. The sample group in this research were 284 middle level administrators from 11 universities of Guangxi. The Interview group was 22 middle-level administrators. The research instruments were documents analysis, questionnaire, structured interview and evaluate form. The statistic to analyze the data were percentage, mean, standard deviation and content analysis.

The results were found that 1) the current situation of informatization leadership for middle-level managers in five aspects was at medium level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest mean was visionary leadership, followed by digital citizenship, and digital age learning culture was the lowest mean. 2) The provide development model to improve the information leadership of middle level administrators universities of Guangxi includes 5 aspects, with a total of 30 measures: 1) Visionary leadership, 2) Digital age learning culture, 3) Excellence in professional practice, 4) Systematic improvement and 5) Digital citizenship. 3) The suitability and feasibility of model to improve the information leadership of middle level administrators universities of Guangxi in 5 aspects were at highest level.

Keywords: Model, Information Leadership, Middle Level Administrators

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Introduction

With the acceleration of China's education informatization process, information leadership has also received more and more attention, and people's practical demand for information leadership is also becoming stronger. In April 2018, the Chinese Ministry of Education issued the "Education Informatization 2.0 Action Plan", which pointed out that it is necessary to conduct in-depth information leadership training and comprehensively improve the information literacy of school administrators at all levels and types. The plan emphasizes the importance of information leadership and clearly points out the necessity of conducting information leadership training. In March 2019, the Ministry of Education issued the "Opinions on the Implementation of the National Information Technology Application Ability Improvement Project 2.0 for Primary and Secondary School Teachers", which emphasized that "a leader shall serve as the school's Chief Information Officer (CIO) Establish a school information management team led by the principal and composed of relevant middle level management personnel of the school, adopt a national demonstration training approach and promote the promotion of information leadership in various regions, and promote specialized training for all schools to enhance the information leadership of management teams The opinion once again emphasizes the urgency of improving the informationization leadership of management personnel. All provinces and cities in China have responded to the call and actively promoted the development of information technology leadership training for school administrators. According to the analysis of the demand for educational informatization by Lin Zhou. (2021), the main issues affecting the healthy development of educational informatization include insufficient teacher training and leadership support. Therefore, understanding the current situation of informationization leadership among middle-level cadres in various Universities in Guangxi can not only enhance the informationization leadership level of middle-level cadres, improve teachers' information literacy, promote the process of informationization in school education, but also contribute to the healthy development of informationization in education in Guangxi.

Chinese President Xi Jinping (2017) stressed that we should promote educational reform and innovation in response to the development requirements of information technology, build a networked, digital, personalized and lifelong education system, build a learning society where "everyone learns, can learn everywhere, and can learn at any time", and cultivate a large number of innovative talents. China has made unremitting efforts to promote the informatization of education and strive to use informatization as a means to expand the coverage of high-quality educational resources. Through education informatization, we will gradually narrow the digital gap between regions and urban and rural areas, and vigorously promote educational equity. Leithwood (1999) believes that school leadership includes six major functions: informatization leadership, teaching development leadership, management leadership, activity participation leadership, moral leadership, and accident handling. Among them, the most important are informatization leadership and teaching development leadership. informatization leadership is led by senior management in schools, which in turn triggers second-order change. The leadership of teaching development is led by middle management in schools, which in turn triggers first-order change. Teaching and learning are the core of teaching development leadership, with the aim of using information technology to support and promote effective education and

learning. Transformational leadership focuses on changing the organizational structure to achieve school change. Transformational leadership focuses more on changing the structure and culture of organizational structures, while teaching development leadership tends to lead teachers to change students' learning behavior.

In the digital era, information leadership has become a critical competency for higher education administrators. Universities are increasingly required to manage vast amounts of academic, administrative, and research data effectively in order to enhance decision-making, organizational innovation, and institutional competitiveness (Johansen, 2017). For middle-level administrators, who serve as the operational link between top management and frontline staff, strong information leadership is essential for ensuring smooth communication, effective implementation of policies, and the integration of information technologies into teaching and learning (Hallinger & Kovacevic, 2019).

In the context of Guangxi, China, universities are facing challenges in adapting to national strategies such as “Digital China” and “Education Informatization 2.0,” which emphasize the transformation of educational management systems through digitalization and information-driven leadership (Ministry of Education of China, 2022). However, previous studies indicate that middle-level administrators often lack adequate training and structured models for developing information leadership competencies, which limits their ability to support innovation and digital transformation (Wang & Liu, 2020). Developing a model to improve the information leadership of middle-level administrators is therefore necessary. Such a model will not only strengthen the administrators’ capacity to manage information effectively but also foster collaborative networks, enhance digital governance, and support sustainable university development in the Guangxi region. Mor

over, it can serve as a practical framework for professional development, guiding universities in other provinces in China to respond to the demands of the knowledge society and global educational reform (Zhang & Wang, 2023).

From this, it can be seen that Guangxi, as one of the important windows of the Western Development of China and the European Union, has always attached great importance to the construction and development of higher education. Middle level administrators in various universities in Guangxi are also very important for the construction and development of management teams. They are not only the specific executors of strategic goals for various universities in Guangxi, but also the decision-makers of management decisions. They play a leading and management role that connects the past and the future in their work. The level of their quality and ability will directly affect the competitiveness and management level of the school. How to determine the level of information leadership among these administrators? How can we select and train a group of middle level administrators with excellent information technology leadership? This article attempts to seek solutions to these problems through research on the information leadership of middle level administrators of universities in Guangxi.

Objectives

1. To analyze the current situation of information leadership of middle level administrators universities of Guangxi.
2. To provide development model to improve the information leadership of middle level administrators universities of Guangxi.
3. To evaluate the suitability and feasibility of model for information leadership development of middle level administrators universities of Guangxi

Scope of the Research

1. Scope of Content

- 1.1 Concept leadership
- 1.2 Concept of informational leadership

2. Scope of Population

2.1 To analyze the current situation of information leadership of middle level administrators universities of Guangxi. The population included 1,077 middle level administrators from 11 Guangxi universities. the sample group. According to the sampling table of Population and the Sample Group, the sample group of this research was 284 middle level administrators from 11 universities in Guangxi.

2.2 To provide development model to improve the information leadership of middle level administrators universities of Guangxi. The interviewees in this research was 22 high-level administrators universities in Guangxi. The qualifications of interviewees are as follows: 1) at least 6 years of work experience in high-level administrator in universities, 2) have extensive experience in information leadership, 3) associate professor or above.

2.3 To evaluate the suitability and feasibility of model for information leadership development of middle level administrators universities of Guangxi. The experts for evaluation of the suitability and feasibility of model for information leadership development of middle level administrators 22 high-level administrators in Guangxi

Research Framework

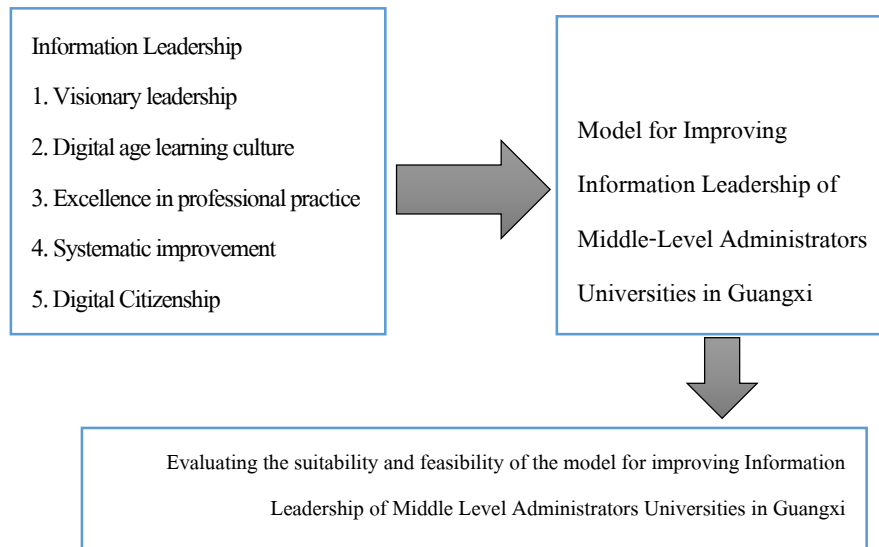


Figure 1 Research Framework

Research Methodology

Phase 1: Studying the current situation of information leadership of middle level administrators universities of Guangxi.

Phase 2: To provide development model to improve the information leadership of middle level administrators universities of Guangxi.

Phase 3: To evaluate the suitability and feasibility of model for information leadership development of middle level administrators universities of Guangxi

This research is a mixed methods research. The research method is divided into 3 steps as follows

Phase 1: Studying the current situation of information leadership of middle level administrators universities of Guangxi.

The population / Sample Group

The population included 1,077 middle level administrators from 11 Guangxi universities. the sample groups. According to the sampling table of Population and the Sample Group, the sample group of this research was 284 middle level administrators from 11 universities in Guangxi. Determining the number of samples according to the table of Krejcie and Morgan (Krejcie & Morgan, 1970) at the error level of .05, then stratified random sampling and simple random sampling.

Research Instruments

The instrument to collect the data for objective one, to study the current situation of Strategies for Developing Information Leadership of Middle Level Administrators in Guangxi Universities was questionnaire. The questionnaire

designed based on Information leadership in 5 following aspects:1)Visionary leadership,2) Digital age learning culture,3) Excellence in professional practice,4) Systematic improvement, 5)Digital Citizenship. The questionnaire has a reliability value of 0.960.

Data Collection Method

The researcher requested requirement letter form the graduate school, Bansomdejchaopraya Rajabhat University for requiring collecting the data from 284 middle level administrators universities in Guangxi. A total of 284 questionnaires, 100 percent

Data Analysis

The current situation of information leadership of middle-level administrators in universities in Guangxi in four following aspects: 1)Visionary leadership,2)Digital age learning culture,3)Excellence in professional practice,4. Systematic improvement,5. Digital citizenship, was analyzed by Mean and standard deviation.

Phase 2: To provide development model to improve the information leadership of middle level administrators universities of Guangxi.

The population / Sample Group

The population of this phase was 52 high-level administrators from 11 universities in Guangxi. The Sample Group select by Purposive Sampling, the interviewees in this research was 22 high-level administrators universities in Guangxi. The qualifications of interviewees are as follows: 1) at least 6 years of work experience in high-level administrator in universities, 2) have extensive experience in information leadership, 3) associate professor or above.

Research Instruments

The instrument to collect the data for objective two, to formulate the model for developing the innovative leadership of middle level administrators in universities in Guangxi. The structured interview was designed based on the current situation of innovative leadership of middle-level administrators universities information leadership in 5 following aspects: 1)Visionary leadership,2) Digital age learning culture,3) Excellence in professional practice, 4) Systematic improvement,5)Digital Citizenship.

Data Collection Method

The researcher requested requirement letter form the graduate school, Bansomdejchaopraya Rajabhat University for requiring interviewing the high-level administrators from 11 university in Guangxi. The researcher interviews the high-level administrator one-by-one through online platform or by face-to-face depending on the interviewee convenience.

Data Analysis

The structured interview about model for developing the information leadership of middle level administrators universities in Guangxi was analyzed by content analysis.

Phase 3: To evaluate the suitability and feasibility of model for information leadership development of middle level administrators universities of Guangxi

The population / Sample Group

The population of this phase was 22 expert administrators from 11 universities in Guangxi. The Sample Group; The experts for evaluating the suitability and feasibility of model for developing the information leadership of middle level administrators was 5 high-level administrators in Guangxi. The qualifications of the experts are as follows: 1) at least 15 years of work experience in high-level administrator in universities, 2) have extensive experience in innovation leadership, 3) graduated with doctor's degree, 4) academic title is associate professor or above.

Research Instruments

The instrument to collect the data for objective three, to evaluate the model for developing the innovative leadership of middle-level administrators universities in Guangxi. The evaluation form designed based on model for developing the information leadership of middle level administrators in universities in 5 following aspects: 1) Visionary leadership, 2) Digital age learning culture, 3) Excellence in professional practice, 4) Systematic improvement, 5) Digital citizenship

Data Collection Method

The researcher requested requirement letter form the graduate school, for requiring to invite the expert to evaluate the model. The researcher distributed the evaluation form to high-level administrators. A total of 22 evaluation form.

Data Analysis

The data analysis in this research, the researcher analyzes the data by package program, as follows: The evaluation of the suitability and feasibility of the model for developing the innovative leadership of middle-level administrators universities in Guangxi is analyzed by Mean and standard deviation.

Research Findings

1. The analysis results about the current situation of information leadership of middle level administrators universities of Guangxi

Table 1 The average value and standard deviation of the current situation of informatization leadership for middle-level managers in five aspects

	Academic affairs management	$\bar{X}$	S.D	level	Order
1	visionary leadership	4.16	0.65	high	1
2	digital age learning culture	3.94	0.67	high	5
3	excellence in professional practice	4.12	0.68	high	3
4	systematic improvement	4.02	0.67	high	4
5	digital citizenship	4.15	0.63	high	2
	Total	4.08	0.62	high	

According to table 1 found that the current situation of informatization leadership for middle-level managers in five aspects was at medium level ($\bar{x} = 4.12$). Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was visionary leadership ($\bar{x} = 4.16$), followed by digital citizenship ($\bar{x} = 4.15$), and digital age learning culture was the lowest level ($\bar{x} = 3.94$).

Visionary Leadership was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was that middle managers enable a shared vision of purposeful change to be stimulated and facilitated among all stakeholders, the following is that Middle managers are able to organize, develop, and implement their unit's vision for informatization, the next is that middle managers have high vision leadership, the minimum is that middle managers can strive for or provide relevant funds for information construction as a guarantee for information construction.

Digital age learning culture was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was that Middle managers can actively participate in the learning and training activities of informatization-related knowledge, the following is that Middle managers are able to organize informatized centralized learning on a regular basis, the next is that middle managers can ensure the effective integration of information technology and educational teaching practices, and the lowest level is that Middle managers can establish regional or project-based information construction communities between departments.

Excellence in professional practice was at medium level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was that middle managers can use digital tools such as We Chat to facilitate effective communication and collaboration among stakeholders and set a good example, the following is that middle managers are good at summarizing the results of information construction and educational experience and can scientifically allocate time, resources and access rights to ensure the smooth flow of information technology and the sustainable development of information construction in the process of technology integration and the lowest level is that middle managers have good practical experience in informatization and can grasp and effectively use the frontiers and trends of education and research related to information technology.

Systematic improvement was at medium level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was that middle managers can establish evaluation standards for information construction through collaboration, and regularly collect and analyze data and interpret the results of relevant data evaluation the following is that middle managers can share the findings of research and information construction through effective channels, thereby improving the work efficiency of employees and the learning effect of students. The lowest level is that middle managers can coordinate and solve relevant problems in the process of information construction in a timely manner.

Digital citizenship was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was that Middle managers can raise the awareness of teachers and students to participate in informatization, and take the lead in participating in the informatization construction of the global village, the following is that middle managers can play an active role in promoting the improvement of the quality of citizens in the digital age, And the lowest level is that middle managers can be models for the safe, legal, and ethical use of mathematicised information and technology.

2. The model to improve the information leadership of middle level administrators universities of Guangxi includes 5 aspects, with a total of 30 measures: 1) Visionary leadership 6 measures, 2) Digital age learning culture 5 measures, 3) Excellence in professional practice 7 measures, 4) Systematic improvement 6 measures and 5) Digital citizenship 6 measures shown as figure 1.

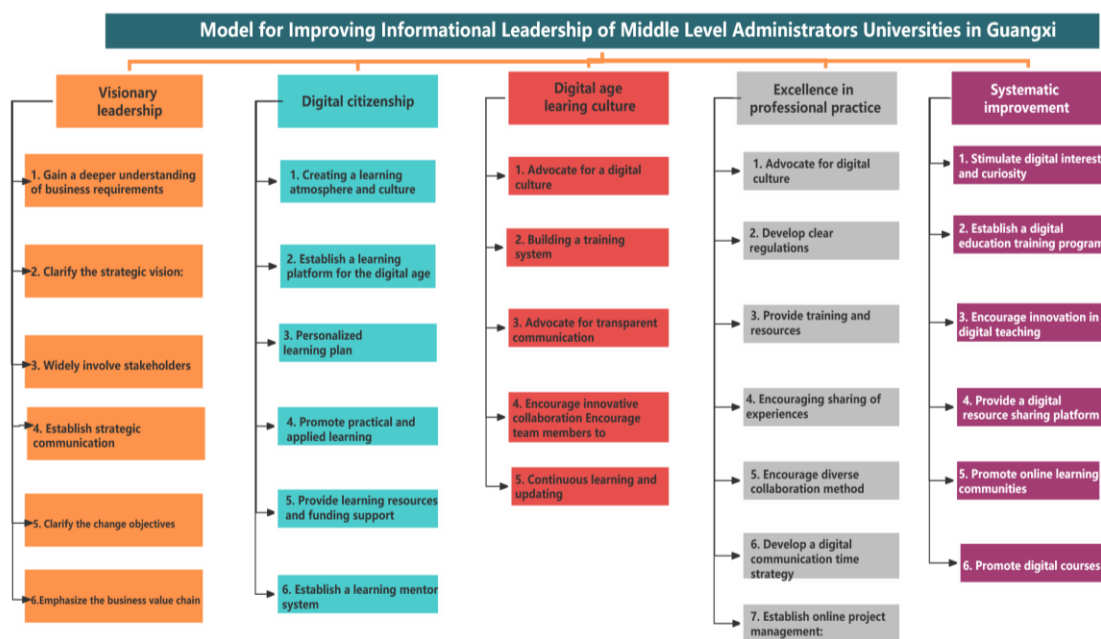


Figure 1 The model to improve the information leadership of middle level administrators universities of Guangxi

2.1 Developing Visionary leadership includes: 1) Gain a deeper understanding of business requirements: Middle level managers should have a comprehensive understanding of the organization's business, ensure that the change vision aligns with business needs, and promote change to directly serve the organization's strategic goals. 2) Clarify the strategic vision: Ensure that the change vision is aligned with the organization's long-term strategy, avoid isolated actions, and make change a part of achieving the organization's long-term goals. 3) Widely involve stakeholders: Middle level managers should actively collaborate with various stakeholders to

ensure that the change vision receives widespread support and work together from multiple parties to achieve the change goals. 4) Establish strategic communication: Ensure that the vision for change is clearly communicated to all stakeholders through strategic communication mechanisms, maintaining information consistency and transparency. 5) Clarify the change objectives: Set clear and measurable change goals to clarify the direction of change and help all stakeholders work together towards a common goal. 6) Emphasize the business value chain: Highlighting how informatization can improve business efficiency, create greater value, and enable all stakeholders to understand the actual business value of change.

2.2 Developing digital age learning culture includes: 1) Creating a learning atmosphere and culture: Middle level managers should actively create an organizational culture centered on learning, and convey the concepts of "learning is growth" and "continuous learning is the key to success" through organizing learning activities, symposiums, and sharing meetings, integrating learning into the corporate culture. 2) Establish a learning platform for the digital age: Create a learning platform for the digital age, including online courses, learning resources, social interactions, etc., to provide middle-level managers with learning opportunities, and become a platform for employees to share learning experiences and insights. 3) Personalized learning plan: Develop a personalized learning plan by regularly conducting one-on-one learning needs analysis with employees, so that middle-level managers pay more attention to the knowledge and skills they need, and improve the personalization and practicality of learning. 4) Promote practical and applied learning: Not only does it focus on theoretical knowledge, but it also promotes practical and applied learning. Through practical projects, simulated scenarios, and other methods, enabling middle-level managers to put the knowledge they have learned into practice. 5) Provide learning resources and funding support: Enterprises should provide sufficient learning resources and financial support, including purchasing online courses, professional training, learning tools, etc. Middle managers can personally promote and ensure that employees have the opportunity to access the latest learning information and tools. 6) Establish a learning mentor system: By establishing a learning mentor system, middle-level managers can stimulate employees' enthusiasm for learning, encourage them to share learning experiences, provide professional learning guides for employees, and accelerate the transfer of knowledge and skills.

2.3 Developing excellence in professional practice includes: 1) Advocate for a digital culture: Middle managers should lead the team to establish a positive digital communication culture, emphasize the importance of online collaboration and file sharing, ensure that digital tools run through the entire work process, and improve professional practical skills. 2) Building a training system: Develop clear guidelines for the use of digital tools, provide training and resource support, and assist the team in fully mastering and flexibly applying digital tools through regular training courses, online help documents, and other means to improve professional practice level. 3) Advocate for transparent communication: Advocate for a transparent and open communication atmosphere, establish an online project management system, encourage information sharing, and

ensure timely and accurate communication. Transparent communication helps teams better understand work progress and professional practical needs. 4) Encourage innovative collaboration: Encourage team members to engage in innovative collaboration on digital platforms, establish a digital professional practice reward mechanism, promote teams to propose new collaboration methods through tools such as WeChat. 5) Continuous learning and updating: It is recommended that middle-level managers always pay attention to digital trends, set digital practice goals, and encourage team members to participate in cross team collaboration to ensure that the team always maintains a professional leading position.

2.4 Developing systematic improvement includes: 1) Advocate for digital culture: Middle managers should lead the team to build a digital communication culture, promote online collaboration and real-time interaction, ensure that digital tools are widely used in work, and improve professional practice level. 2) Develop clear regulations: Middle managers should establish clear guidelines for the use of digital tools, including professional purposes, information confidentiality, and best practices for collaboration, to standardize team behavior on platforms such as We Chat and improve professional competence. 3) Provide training and resources: To improve the team's ability to use digital tools, middle-level managers should provide regular training, video tutorials, and online help documents to ensure that the team fully masters the application of digital collaboration tools. 4) Encouraging sharing of experiences: Middle managers encourage team members to share the best practices of digital tools, establish a sharing mechanism, and encourage the team to learn and learn from experiences together, thereby improving their professional practice level. 5) Encourage diverse collaboration methods: Middle managers encourage teams to try diverse digital collaboration methods, including WeChat groups, online meetings, document collaboration, etc., to meet different work styles and collaboration needs. 6) Develop a digital communication time strategy: To improve professional practice, middle-level managers should clarify the time management strategy for digital communication, distinguish the use scenarios of instant feedback and formal collaboration tools such as WeChat, and improve work efficiency. 7) Establish online project management: Middle level managers introduce an online project management system, synchronize project information in real-time through tools such as WeChat, assign tasks, improve project management efficiency, and promote the development of team professional practice.

2.5 Developing digital citizenship includes: 1) Stimulate digital interest and curiosity: Middle managers should encourage exploration and organize digital activities, cultivate curiosity among teachers and students about the digital world, and guide them to actively participate in interesting ways. 2) Establish a digital education training program: Develop a comprehensive digital education and training plan for all staff, covering basic digital skills, information security, data privacy, and other aspects, to ensure that teachers and students can master necessary digital knowledge. 3) Encourage innovation in digital teaching: Advocate teachers to use digital tools and innovate teaching methods in teaching, making it easier for students to accept the digital environment and enhancing their digital literacy. 4) Provide a digital resource sharing platform: Create a digital

resource sharing platform to enable educators to share and obtain experiences in digital textbooks, curriculum design, etc., and promote the full utilization of digital resources. 5) Promote online learning communities: Establish an online learning community that allows teachers and students to discuss academic issues and share disciplinary insights online, in order to cultivate collaborative and communication habits in the digital age. 6) Promote digital courses: Encourage schools to add courses related to digital technology, including programming, data analysis, etc., to enhance students' competitiveness in the information society.

3. Evaluate the suitability and feasibility of model for information leadership development of middle level administrators universities of Guangxi, shown that table 2

Table 2 The average value and standard deviation of the evaluation of the Suitability and feasibility of model for information leadership development of middle level administrators universities of Guangxi in 5 aspects

Guidelines	Suitability			Feasibility		
	$\bar{X}$	S.D	Level	$\bar{X}$	S.D	Level
1 Visionary leadership	4.68	0.67	highest	4.61	0.61	highest
2 Digital age learning culture	4.76	0.59	highest	4.71	0.79	highest
3 Excellence in professional practice	4.79	0.46	highest	4.77	0.58	highest
4 Systematic improvement	4.79	0.48	highest	4.68	0.63	highest
5 Digital citizenship	4.80	0.54	highest	4.82	0.43	highest
Total	4.76	0.56	highest	4.72	0.57	highest

According to table 2, the suitability of models for improving the information leadership of middle-level administrators in 5 aspects were at highest level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was Digital citizenship, followed by Excellence in professional practice, Systematic improvement and Visionary leadership was the lowest level.

The feasibility of models for improving the information leadership of middle-level administrators in 5 aspects were at highest level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was Digital citizenship, followed by Excellence in professional practice and Visionary leadership was the lowest level.

Discussion

1. The current situation of information leadership of middle level administrators universities of Guangxi in 5 aspects was at medium level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was visionary leadership , followed by digital citizenship ,excellence in professional practice, systematic improvement ,and digital age learning culture was the lowest level .The related to the research of Larson, L., Miller, T., & Ribble, M. (2010): Technology has forever altered the way one learns and teaches, and the pace of change is only accelerating. What was hot last year or even last month may be of little interest today. How can educational leaders keep up with the daily onslaught of information when new literacies rapidly outpace traditional literacies, and access to technology and information expands exponentially? Administrators and teacher leaders have to take personal responsibility for understanding changes in tech implementation and integration in their buildings and classrooms rather than simply relying on technology support staff. It is up to the building-level staff, district personnel, and educational leaders to move schools into the digital age. In this article, the authors suggest five considerations, aligned with ISTE's NETS for Administrators, for initiating a shared vision that embeds tech integration into all aspects of learning and teaching: (1) visionary leadership; (2) digital age learning culture; (3) systemic improvement; (4) excellence in professional practice; and (5) digital citizenship.

2. The models for developing the information leadership of middle level administrators universities of Guangxi. including 5 aspects, a total of 30 measures: 1) 6 measures to developing visionary leadership; 2) 6 measures to developing digital age learning culture; 3) 5 measures to developing excellence in professional practice; 4) 7 measures to developing systematic improvement; 5) 6 measures to developing digital citizenship. Related to Bass (1985) not only deeply defined the concept of informatization leadership, but also divided informatization leadership for the first time into a three-dimensional structure including intellectual stimulation, charismatic-inspirational leadership, and personalized care. Li Chaoping and Shi Kan (2005) proposed that used an inductive approach to develop China's informatization leadership theory, pointing out that under China's special cultural background, informatization leadership is a four-dimensional structure, including vision motivation, leadership charisma, moral example, and personalization. Care, in which the dimension of leadership charisma is the same as the dimension of informatization leadership behavior proposed by Bass; the personalized care dimension not only includes the content of personalized care in the original MLQ, but also includes leaders with Chinese cultural characteristics on employees' personal lives and families Caring and visionary motivation are unique dimensions of informatization leadership behavior in the Chinese cultural context; Moral modeling is a unique dimension of informatization leadership behavior in China, which emphasizes the role of leaders' own moral behavior in setting an example for employees. Podsakoff et al (1990) proposed that proposed six elements of informatization leadership, including: articulating a vision, providing appropriate role models, promoting

acceptance of goals, communicating high expectations for performance, and providing individualized support and intellectual stimulation.

3. The suitability and feasibility of model for information leadership development of middle level administrators universities of Guangxi in 5 aspects were at highest level with the values between 4.00 and 5.00, which means models for developing the middle-level managers informatization leadership of in Guangxi universities are suitability and feasibility . related to Huang Hubin's (2007) study pointed out that in order to enhance the leadership of middle-level cadres in universities, it is necessary to pay attention to the following six points: first, strengthen learning, liberate the mind, optimize thinking and put it into practice to promote personal growth; Secondly, by correctly understanding execution ability, actively identifying with execution culture, simulating correct execution attitudes, and continuously improving execution ability; The third is to enhance management abilities by enhancing thinking and planning, decision-making and command, communication and coordination, and adjustment and control; The fourth is to enhance creativity, including convergence, divergence, heterogeneity, and transcendent innovative thinking; The fifth is to learn expression examples, carefully prepare expressions, devote oneself to expression practice, carefully obtain expression feedback, focus on seeking expression improvement, and enhance expression power; Six is to focus on career development, quality development, closeness to the masses, and self-development, enhance influence, strengthen leadership foundation, improve leadership level, enhance leadership position, establish leadership authority, exert leadership effectiveness, achieve leadership goals, and ultimately enhance the leadership of middle-level cadres in universities. The suitability and feasibility of visionary leadership was highest level. Kehr Hugo M.;Voigt Julian; Rawolle Maika (2022) An unresolved question in visionary leadership research is, why must visions be high in imagery to cause affective reactions and be motivationally effective? Research in motivation psychology has shown that pictorial cues arouse implicit motives. Thus, pictorial cues from vision-induced imagery should arouse a follower's implicit motives just like a real image. Hence, our fundamental proposition is that follower implicit motives and follower approach motivation serially mediate the relationship between leader vision and followers' vision pursuit.

Recommendations

Recommendations in implementation

1. Developing visionary leadership; it's imperative to empower middle managers with financial literacy and decision-making skills. Offering training on budgeting, cost-benefit analysis, and aligning funds with strategic goals will enable them to actively contribute to information construction.

2. Developing digital age learning culture; a focused effort should be directed at enhancing middle administrator' abilities to inspire educators in reforming education informatization. Providing targeted training programs

and workshops for middle managers on effective communication, leadership strategies, and the benefits of educational technology can empower them to motivate and guide educators.

3. Developing excellence in professional practice; focusing on middle administrator ' role in inspiring educators to reform education informatization. Implementing targeted training programs for middle managers to cultivate leadership skills, promote effective communication, and emphasize the value of technology in education can empower them to motivate and guide educators.

4. Developing systematic improvement; involves empowering middle managers with problem-solving skills and effective coordination in information construction. Providing targeted training on critical thinking, conflict resolution, and project management equips them to navigate challenges promptly.

5. Developing digital citizenship: empowering middle administrator to serve as models for the safe, legal, and ethical use of mathematized information and technology. Implementing targeted training on responsible digital behavior, data privacy, and ethical considerations equips them to lead by example.

Recommendations for further research

1. Development model for improving and optimizing information technology leadership for Dean in Guangxi universities.

2. Constructing an Evaluation Index System of Information Leadership for Dean in Guangxi universities

3. Model optimization and validation: Further optimize the constructed information leadership model, verify the feasibility and effectiveness of the model through empirical research and field investigations, and ensure its applicability to the actual situation of universities in Guangxi.

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