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Original Research Article

An Exploratory Study on the Training Strategies of Educational Administrators in the Greater Khingan Range China

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ABSTRACT

This study explores the training strategies for educational administrators in rural areas, using D University in the Greater Khingan Range region of China as a case study. The research addresses the unique challenges faced by educational administrators in this remote, economically underdeveloped area, such as limited resources, teacher shortages, and outdated infrastructure. A competency model was developed using the Delphi method and expert consultation, identifying key competencies needed for educational leadership in such environments. Through three rounds of expert consultation, the study refined the competency model to include five core dimensions: professionalism, management ability, interpersonal skills, personal traits, and professional competency. The final model achieved a high level of consensus among experts, with management ability identified as the most critical competency. The study's findings highlight the need for customized training programs tailored to the specific challenges of rural regions and emphasize the importance of interpersonal skills, crisis management, and strategic planning. Recommendations are provided to enhance the effectiveness of training programs for educational administrators, including incorporating continuous professional development and integrating technology for remote learning and administration.

Introduction

In recent years, the development of educational administrators has garnered increasing attention in academic research and policy discussions, as they play a pivotal role in shaping the quality and effectiveness of educational institutions (Bush, 2020). The importance of educational leadership is particularly pronounced in rural and remote regions, where challenges related to resource allocation, teacher retention, and infrastructure often hinder the progress of educational systems (Chen & Wang, 2021). In China, the Greater Khingan Range region, a remote and economically underdeveloped area, presents a unique case for exploring how educational administrators can be trained and supported to meet the specific needs of their communities.

Educational administrators in rural regions often face more complex challenges than their urban counterparts. Research indicates that administrators in these settings must manage various responsibilities, including navigating limited budgets, addressing the shortage of qualified teachers, and fostering community engagement despite geographical isolation (Li, 2019). Moreover, these administrators are often tasked with implementing national educational policies in contexts that may not align with urban-centric assumptions, thus requiring adaptability and innovation (Zhao & Liu, 2020). These factors underscore the importance of effective training and professional development programs tailored to the specific needs of rural educational leaders.

The Greater Khingan Range region is one of China's most sparsely populated areas, with a population density of only 6.5 people per square kilometers (National Bureau of Statistics of China, 2022). This region faces numerous educational challenges, including a significant shortage of qualified teachers, outdated educational infrastructure, and a lack of access to advanced educational technologies (Ma & Liu, 2022). According to a 2021 report by the Ministry of Education of the People's Republic of China, the dropout rate for middle school students in remote areas like the Greater Khingan Range is 1.8%, significantly higher than the national average of 0.9% (Ministry of Education of China, 2021). These statistics highlight the urgent need for competent educational administrators to manage these challenges effectively and improve educational outcomes in the region.

While there has been considerable research on educational administration in China, much of this work has focused on urban contexts, leaving a significant gap in understanding how educational administrators in rural areas can be best supported (Chen et al., 2021). Few studies have explored the specific competencies required for successful educational leadership in rural and remote areas like the Greater Khingan Range, where administrators must navigate educational challenges and the socio-economic issues that affect student engagement and performance.

Objectives

1. To construct the training standards for educational administrators at D University using the Delphi method.
2. To identify the model for educational administrators at D University through exploratory factor analysis.

Literature Review

Education administrators played a vital role in school management and decision-making, especially in promoting the quality and efficiency of school education (Chen & Chen, 2020). However, with the development of globalization and informatization, the educational

environment became more complex, and the challenges faced by educational administrators increased (Leithwood et al., 2021). For example, how to effectively respond to changes in education policies, teachers' professional development needs, and parents' and community's expectations for school management were core issues that administrators needed to address (Hallinger & Hammad, 2019).

In order to meet these challenges, many studies emphasized the importance of systematic and continuous leadership development programs for educational administrators (Bush & Glover, 2021). These programs usually included theoretical learning, practical training, and personal reflection to improve managers' strategic decision-making ability, communication skills, and team leadership (Day & Sammons, 2020). Especially in China, recent studies pointed out that the training of local education administrators should pay more attention to the needs of regional education development and tailor management training programs that met local realities (Zhou & Zhang, 2022).

In remote areas of China, such as the Greater Khingan Range, the training of educational administrators faced unique challenges. Geographical isolation, limited educational resources, and uneven educational development forced administrators in these areas to not only solve traditional educational management problems, but also deal with specific regional challenges (Wang, 2021). To this end, local institutions such as D University began to explore training strategies suitable for educational administrators in their regions, combining local resources to carry out customized training programs to enhance educational administrators' practical management and problem-solving abilities (Li & Peng, 2023).

A competency model refers to standards defining and evaluating the knowledge, skills, abilities, and behaviors required for employees to succeed in a specific position (Boyatzis, 1982). Since the 1980s, competency models were widely used in different fields, including human resource management, career development, and organizational change (Spencer & Spencer, 1993). In recent years, the development of competency models gradually shifted from a single task orientation to the cultivation of comprehensive qualities, emphasizing employees' diverse abilities and personal characteristics (Hoffmann, 1999).

Competency models were often constructed using a variety of methods, including Behavioral Event Interviewing, task analysis, and Critical Incident Technique (McClelland, 1998). These methods were designed to identify key behaviors and capabilities that distinguished high performers from average performers. Research showed that effective competency models could identify key capabilities that were highly consistent with organizational performance and strategic goals through these methods (Dubois & Rothwell, 2004).

Competency models were widely used in various industries and occupations. For example, in healthcare, competency models helped define the core skills of professionals such as doctors and nurses, thereby improving the quality of medical services (Caldwell et al., 2008). In the education field, competency models were used in the professional development of teachers to help educators improve their teaching skills and management capabilities (Mulder et al., 2007). In addition, the information technology industry also used competency models to assess employees' adaptability and innovation capabilities in a rapidly changing technological environment (Marrelli et al., 2005).

Despite the increasing application of competency models, their construction and application still faced some challenges. First, the construction of competency models required a lot of time and resources, especially in large multinational organizations (Shippmann et al., 2000). Second, as the work environment and skill requirements changed, the dynamic update of

competency models became particularly important (Campion et al., 2011). In the future, the development trend of competency models would pay more attention to personalization and flexibility to cope with the changing needs of organizations and individuals (Sanchez & Levine, 2009).

Education administrators played an important role in promoting school management efficiency and education quality, especially in globalization and informatization, where administrators faced increasingly complex challenges. Research showed that through systematic and continuous leadership development programs, administrators could improve their strategic decision-making, communication, and leadership capabilities, especially in remote areas of China. Training strategies needed to be combined with local education development needs and tailor-made training programs. At the same time, competency models were widely used in many fields as an important tool for evaluating and improving employee capabilities. Their construction methods included behavioral event interviews, task analysis, and critical incident techniques, which could effectively identify and cultivate employees' core competencies. Therefore, this study used competency models to study the training strategies of educational administrators.

Research Methods

Research Design

This paper takes the design of the training system for administrative managers at D University as its research focus. Based on the analysis of existing problems and their causes, the competency model theory is introduced, and the research follows the "propose-analyze-solve" approach. Starting from the drastic changes in the external environment of the administrative sector in remote areas in recent years, the paper explains the main factors currently limiting the development of social administrative personnel in these regions. It suggests that the key to overcoming the challenges in remote areas is to enhance the professionalism and specialization of administrative managers, establish a more scientific and efficient management mechanism, leverage the strength of administrative managers, and improve the operational efficiency and management effectiveness of institutions in remote areas. The Delphi method and questionnaire survey ha be employed to propose, analyze, and solve these issues.

Population and Sample

This study's population is comprised of educational administrators and related staff from DV College, an important institution serving the Greater Khingan Range region. The college provides vocational education to a large portion of the local community, making it a critical area of focus for understanding the unique challenges faced by educational administrators in rural and remote settings. According to the latest institutional data, Daxinganling D univesity has a total of 220 administrative personnel, including heads of departments, managers, and staff responsible for logistical and operational management. These administrators play a vital role in ensuring the smooth functioning of the college, overseeing everything from policy implementation to resource allocation in an environment marked by geographic and socio-economic isolation.

The Delphi method was employed for expert consultation to gain in-depth insights into the competencies required for effective educational leadership. Delphi guidelines recommend that an optimal panel size ranges between 15 and 50 experts (Okoli & Pawlowski, 2004). Based on the available research funding and time constraints, 20 experts were selected for this study. The criteria for expert selection included having a bachelor's degree or higher, being

recommended by the primary leaders of their respective institutions, holding a leadership position in administrative or logistical departments, and possessing at least eight years of administrative experience. All experts selected demonstrated a strong interest in the study and a willingness to contribute their knowledge.

In addition to the Delphi panel, this study broadened its research scope by surveying a wider range of individuals, including current administrators at Daxinganling Vocational College, reserve management staff, former administrators, and administrative personnel from similar educational institutions within the region. This wider survey approach was intended to capture a more comprehensive view of educational administrators' challenges in rural contexts. 170 questionnaires were distributed, and 150 valid responses were collected, yielding a high response rate of 88.2%. This response rate ensures the reliability of the data, which serves as a robust basis for analyzing the specific challenges and competencies required for educational administration in the Greater Khingan Range.

Research Instrument

According to the competency questionnaire for administrative managers of D University, the questionnaire contains two parts: basic information and competency factor importance evaluation scale. The basic information includes gender, age group, education level, and the way of serving as a middle-level or reserve cadre. The competency characteristics include 5 dimensions, 30 competency factors and corresponding interpretations, and the Likert 5-level scale is used to evaluate the importance of the competency factors, with a score of 1-5, where 5 is "very important", 4 is "relatively important", 3 is "average", 2 is "not very important", and 1 is "not important".

Data Collection

The questionnaire was sent to the experts via WeChat and email, and they were informed of the precautions for filling out the questionnaire and the collection time. After the questionnaire was collected, the competency model in the questionnaire was updated in combination with the modification opinions of the experts, and a new questionnaire was formed and sent to the experts again until the experts' opinions reached a consensus. This survey conducted 3 rounds of correspondence; the questionnaire collection rate was 100%. Among them, 70% of the experts put forward modification opinions, indicating that the experts were highly motivated. The competency factors of the administrative middle-level managers of D University were preliminarily determined through the Delphi expert consultation method. Therefore, it is necessary to describe the characteristics of the competency factors and form a competency questionnaire for administrative middle-level managers of D University to unify the understanding of the competency factors by the survey subjects during the questionnaire survey.

Data analysis

By contacting experts in this field who possess certain professional capabilities through various channels, a group of experts is formed. Using literature analysis and interviews, and with the aid of online communication, the consultation model is developed and survey questionnaires are distributed to the experts. The experts do not communicate with each other; their responses are collected and summarized repeatedly 3-5 times, ultimately forming a consensus among the experts. The results are organized into a Likert scale. Based on the results of the Delphi expert consultation, questionnaires are distributed to current managers of the university, reserve management staff, some retired managers, and other social or administrative managers in the same or similar circles. Using SPSS, the collected survey data is statistically analyzed, and finally, a competency model for administrative managers at D university is constructed.

Research Results

This study examines the consistency of consulting experts' cognition of the importance of competency indicators. This paper uses Kendall's coordination coefficient W test for analysis. According to the application research presented in the relevant literature of Delphi expert consultation method, the result of more than 0.7 is considered to be a good consistency of expert opinions. After two rounds of calculations by SPSS, Kendall's W coefficient is statistically significant ($P < 0.01$). The calculation results of the first round of dimensions and competency factors are 0.357 and 0.126 respectively, with low consistency and need further adjustment. Summary of the feedback from the first round of experts: From the perspective of dimensions, the scope of "knowledge and skills" is too narrow and can be changed to "professional ability"; "service characteristics" should be modified to "service awareness" and divided into a specific competency factor, and the dimension is changed to "interpersonal communication skills". From the perspective of competency factors, "aggressiveness" and "achievement orientation" and "proactiveness" are conceptually repeated; "data sensitivity" can be included in the "operating ability" factor; "dedication" and "sense of responsibility" can reflect "loyalty"; "process control ability" and "guidance and supervision ability" are conceptually repeated. Based on expert opinions, the competency model was modified as follows (Table 1).

Table 1 Experts' opinions on the first round of revisions to the competency model

Indicator	Before modification	After modification
Variable	Knowledge and skills	Professional skills
	Service characteristics	Interpersonal skills
Factor	Enterprise	Delete
	Attention to detail	Delete
	Data sensitivity	Delete
	Loyalty	Delete
	Process control ability	Delete
	Cultural communication ability	Delete

After the modification, the experts were asked to write a second round of questionnaires, and the collection rate of this round of questionnaires was still 100%. The calculation results of the second round of dimensions and competency factors were 0.465 and 0.420 respectively, and the consistency was still low, so a third round of inquiries was needed. The second round of experts did not propose any modification opinions on the dimensions. In terms of competency factors, it is believed that "multidisciplinary knowledge" can be replaced by "policy and law interpretation ability", because the competency of university administrative middle-level managers should pay great attention to "policy and law interpretation ability". Good interpretation ability can allow universities to make arrangements in advance, rather than always being in the state of "firefighters"; "emergency management ability" and "response ability" can be combined into "emergency response ability"; "development planning ability" and "strategic thinking" can be combined into "strategic planning ability"; "crisis management ability" and "emergency response ability" have conceptual duplication; "goal management ability" is included in "strategic planning ability". Modification opinions are shown in Table 2.

Table 2 Experts' opinions on the second round of revisions to the competency model

Indicator	Before modification	After modification
Factor	Multidisciplinary knowledge	Ability to interpret policies and regulations
	Emergency management skills	Ability to respond to emergencies
	Communication skills	Ability to communicate and express
	Development planning skills	Ability to plan strategies
	Fairness and impartiality	Delete
	Strategic thinking	Delete
	Adaptability	Delete
	Goal management skills	Delete
	Crisis management skills	Delete

The calculation results of the third round of dimensions and competency factors were 0.701 and 0.722 respectively, indicating that after two rounds of revisions, the experts' coordination degree of the existing competency indicators has increased and tended to be consistent. See Table 3 for details.

Table 3 Kendall test results

Round	Indicator	Kendall's W	X^2	p
Round 1	Variable	0.412	32.178	<0.001
	Factors	0.158	81.904	<0.001
Round 2	Variable	0.512	42.735	<0.001
	Factors	0.462	257.803	<0.001
Round 3	Variable	0.734	65.892	<0.001
	Factors	0.755	445.210	<0.001

In this Delphi study, the Kendall test results showed that the consistency of expert opinions improved from round to round. From the first round to the third round, the Kendall's consistency coefficients (Kendall's W) of variables and factors increased from 0.412 and 0.158 to 0.734 and 0.755 respectively, indicating that experts' opinions on variables and factors tend to be consistent. Furthermore, $p<0.001$ for all rounds is statistically significant. This shows that after three rounds of the Delphi method, the consensus of experts' opinions on variables and factors has reached a high level, proving that the selected variables and factors are reliable and consistent.

A descriptive statistical analysis of the sample's basic information was conducted through the questionnaire results (Table 4).

Table 4 Descriptive statistical analysis of questionnaire samples

Variable	Item	n	%	Variable	Item	n	%
Gen	Male	86	57.33	Exp	Undergraduate	42	28.00
	Female	64	42.67		Master	53	35.33
Age	<28	33	22.00		Ph.D.	28	18.67
	28-35	38	25.33		<1	12	8.00
	36-40	21	14.00		1-2	22	14.67
	41-50	23	15.33		3-5	37	24.67
	>50	35	23.33		6-10	49	32.67

Variable	Item	n	%	Variable	Item	n	%
Edu	College	27	18.00		>10	30	20.00

According to Table 4, the descriptive statistical analysis of the sample reveals that the majority of participants are male, accounting for 57.33%, while females constitute 42.67%. In terms of age, the largest proportion of participants falls within the 28-35 age group (25.33%), followed by those above 50 years old (23.33%) and those under 28 years old (22.00%). The age groups 36-40 and 41-50 represent smaller portions, accounting for 14.00% and 15.33%, respectively. Regarding educational attainment, most participants hold an undergraduate degree (28.00%) or a Master's degree (35.33%), while smaller proportions hold a college-level education (18.00%) or a Ph.D. degree (18.67%). In terms of work experience, the highest percentage of participants have 6-10 years of experience (40.67%), followed by those with 3-5 years of experience (24.67%). Participants with 1-2 years of experience and those with more than 10 years of experience represent 14.67% and 20.00%, respectively. This distribution indicates a diverse representation in terms of gender, age, education level, and work experience, providing a solid foundation for further analysis.

KMO and Bartlett tests were performed on the Likert 5-level scale. The closer the KMO value is to 1, the more suitable the scale is for factor analysis. Usually, a KMO value greater than 0.6 means that it is relatively suitable, and greater than 0.8 is considered very suitable. The KMO value of this study reached 0.858>0.8, and the Bartlett test P value was less than 0.001, which shows that the correlation between the scale variables is very strong and the effect of factor analysis is very good.

After analyzing the data using principal component analysis, it can be seen that the initial eigenvalues of 5 components are greater than 1, and the cumulative variance contribution rate of the 5 principal components is 57.413%, that is, these 5 principal components explain more than half of the information originally expressed by the 30 indicators. The principal components are classified through component matrix analysis, and then the matrix components are rotated. After 8 iterations, the final component matrix is obtained. The matrix gathers 30 competency factors into 5 components. The first component includes 8 factors: "responsibility awareness", "dedication", "teamwork", "time management", "proactiveness", "service awareness", "overall awareness", and "system thinking"; the second component includes 9 factors: "ability to respond to emergencies", "focus on quality and order", "coordination and leadership", "cultivation and motivation of others", "guidance and supervision ability", "strategic planning ability", "information collection ability", "decision-making ability", and "operational ability"; the third component includes 2 factors: "communication and expression ability" and "interpersonal insight ability"; the fourth component includes 7 factors: "execution ability", "stress resistance", "adaptability", "emotional control", "self-confidence", "achievement orientation", and "innovation ability"; the fifth component includes 4 factors: "learning ability", "professional knowledge and skills", "policy and law interpretation ability", and "keep up with the forefront of the profession". See Table 4-13 for details.

Table 5. Result of factor analysis

Factors	1	2	3	4	5
Teamwork	0.723				
Service awareness	0.697				
Time management	0.682				

Factors	1	2	3	4	5
Proactiveness	0.665				
Responsibility awareness	0.648				
Overall situation awareness	0.632				
Systematic thinking	0.619				
Devotion to work	0.591				
Information collection ability		0.813			
Coordination and leadership ability		0.802			
Strategic planning ability		0.791			
Decision-making ability		0.775			
Cultivate and motivate others		0.704			
Focus on quality and order		0.687			
Business ability		0.662			
Emergency response ability		0.640			
Guidance and supervision ability		0.612			
Communication and expression ability			0.889		
Interpersonal insight ability			0.854		
Innovation ability				0.827	
Self-confidence				0.803	
Emotional control				0.784	
Achievement orientation				0.769	
Execution ability				0.749	
Adaptability				0.724	
Pressure resistance				0.690	
Learning ability					0.735
Ability to interpret policies and regulations					0.703
Professional knowledge and skills					0.681
Keep up with the forefront of the profession					0.654
Total Variance	28.750	40.677	47.294	52.730	57.413
Cronbach	0.872	0.891	0.878	0.854	0.832
			0.922		

Note: 1=professionalism, 2=management skills, 3=interpersonal skills, 4=personal traits, 5=professional ability

In order to determine the internal consistency of the survey questionnaire, this paper uses Cronbach's alpha coefficient for reliability analysis. Usually, when Cronbach's alpha coefficient is less than 0.6, it is considered that the internal consistency is insufficient; between 0.7-0.8, it means that the survey questionnaire has reliability; and above 0.8, it means that the reliability is very good. This paper conducted reliability analysis on all five dimensions (Table 5). The reliability analysis for the five factors, renamed according to the categories you provided, yielded strong Cronbach's alpha values, indicating good to excellent internal consistency across all factors. Specifically, Professionalism had an alpha of 0.872, Managerial Ability scored 0.891, Interpersonal Skills had an alpha of 0.878, Personal Traits showed a reliability score of 0.854, and Professional Competency had an alpha of 0.832. The overall scale demonstrated excellent

internal consistency, with a Cronbach's alpha of 0.922, which shows that the reliability of the survey questionnaire for the competency of administrative mid-level managers at University D is high.

Finally, the weights of each competency factor and dimension weights are determined by the objective weighting method of the coefficient of variation method to measure the importance of each indicator in the overall model. In the competency model, the greater the difference in the values of each factor, the more difficult it is to achieve, and these factors can better reflect the gap between the evaluation units. It can be seen from the weight coefficient that in the competency model of administrative managers of University D, management ability accounts for 31.6% of the total, which is the largest part of the five dimensions, so it is the most important. The second is professional quality, accounting for 25.2%, personal characteristics account for 21.2%, professional ability accounts for 11.7%, and finally interpersonal communication skills account for 7.8%. The biggest feature that distinguishes middle-level managers from front-line employees is the focus on management ability and the strength of their ability. Professional quality can reflect whether it is worth cultivating, personal characteristics show whether a person has the potential for cultivation, and professional ability and interpersonal communication skills are important abilities that can be acquired through acquired training. The competency model of administrative middle-level managers of D University can be applied to all aspects of human resource management, including job analysis, recruitment, training, performance appraisal, talent assessment, employee career planning, etc. Unified standards can accurately and objectively evaluate administrative middle-level managers and provide a scientific and reasonable basis for employee training.

Conclusion

The overall findings suggest that the competency model developed in this study is both robust and adaptable. The inclusion of five key dimensions—professionalism, management ability, interpersonal skills, personal traits, and professional competency—provides a comprehensive framework for understanding what is required of educational administrators. Furthermore, the use of multiple rounds of expert consultation and the high response rate from administrators ensures that the model is reflective of the unique challenges faced in the Greater Khingan Range. However, the study also uncovers the difficulty of achieving consensus on the specific competencies needed for educational leaders in rural settings. The experts' varied opinions in the early rounds of the Delphi method underscore the diverse needs of administrators in different contexts. This suggests that while the competency model is valuable, it may require further adaptation to address specific local challenges, such as geographic isolation or limited access to technology (Chen & Wang, 2021).

Discussion

The results of this study reveal significant insights into the competencies required for educational administrators in the Greater Khingan Range region. The critical analysis highlights several important findings while uncovering some limitations requiring further reflection. One of the key findings is the importance of management skills, which were rated the highest in the competency model. This result aligns with the literature on educational administration, which underscores the centrality of management skills in successfully running educational institutions, especially in resource-limited environments (Bush & Glover, 2021). However, while this finding may appear intuitive, it is essential to acknowledge the unique challenges faced by

administrators in remote regions. For instance, the isolation and socio-economic limitations in areas like the Greater Khingan Range mean that management skills must encompass not only traditional functions such as resource allocation but also innovative problem-solving to address local issues like teacher retention and infrastructure development (Wang, 2021). This suggests that the definition of "management skills" in such contexts may need to be expanded beyond typical administrative functions.

The relatively high ranking of professionalism and personal traits is also noteworthy. These competencies reflect the critical need for integrity, dedication, and resilience in challenging educational environments. Previous studies support the idea that personal attributes, such as perseverance and adaptability, are essential for educational leaders in rural areas (Zhou & Zhang, 2022). However, the relatively lower ranking of interpersonal skills raises questions. Given educational leaders' need to engage with communities and foster relationships in geographically isolated settings, one might expect this competency to hold greater importance. It is possible that interpersonal skills were not fully captured in the survey or were overshadowed by the immediate practical concerns administrators face, such as crisis management and policy implementation. This could be a limitation in the research design, where a more nuanced approach might better assess the importance of community engagement and relationship-building in rural educational leadership.

Another critical result involves the iterative modifications made to the competency model through Delphi rounds, which revealed inconsistencies in expert opinions. For example, the consensus was initially low in key areas such as "knowledge skills," leading to modifications like changing "service characteristics" to "interpersonal communication abilities." While this iterative process ultimately yielded a higher consensus, it also reflects the inherent difficulty of developing a competency model that meets the diverse expectations of experts. The fluctuations in expert feedback highlight those competencies are context-dependent and that it may be challenging to create a universally applicable model for educational administrators in diverse rural environments (Shippmann et al., 2000). Future research should explore whether certain competencies are more critical in different regions and educational settings.

Recommendation

Based on the findings of this study, several recommendations can be made for improving the training and development of educational administrators in rural regions, specifically in the Greater Khingan Range region of China.

Given the unique challenges faced by educational administrators in rural areas, such as geographic isolation and limited resources, it is essential to tailor training programs to address the specific needs of these environments. Training should focus on developing both traditional management skills and adaptive problem-solving abilities that are crucial for navigating the socio-economic complexities of rural education systems (Wang, 2021). Programs should incorporate localized content that reflects the distinct challenges of rural regions, such as teacher retention and infrastructure development. Despite the relatively lower ranking of interpersonal skills in the competency model, it is crucial to recognize the importance of community engagement for administrators in rural areas. Educational administrators in these regions often serve as intermediaries between the school, community, and local government. Therefore, training programs should place greater emphasis on developing communication and interpersonal skills to strengthen relationships with community stakeholders and improve overall educational outcomes (Zhou & Zhang, 2022).

To ensure that educational administrators remain effective in an evolving educational landscape, continuous professional development programs should be instituted. These programs could include ongoing mentorship and peer-to-peer learning opportunities where administrators can share best practices and develop solutions to common challenges. The establishment of regional networks for administrators in remote areas can foster collaboration and collective problem-solving (Bush & Glover, 2021). Planning into the Curriculum: The study highlighted crisis management and strategic planning as critical competencies. Given the increasing frequency of unexpected events, such as public health crises or natural disasters, it is recommended that training programs integrate crisis management and emergency response into their core curriculum. Strategic planning, particularly in terms of long-term resource allocation and policy implementation, should also be prioritized to ensure administrators are prepared to lead their institutions through periods of uncertainty (Chen & Wang, 2021).

The findings suggest that professional competency, particularly in areas like technology, is increasingly important for educational administrators. Administrators should be trained to leverage digital tools for remote learning, data management, and administrative tasks, which are especially critical in rural areas with limited access to resources. By enhancing their technical skills, administrators can improve operational efficiency and educational outcomes (Liu & Zhang, 2021).

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