

Leadership Role in Addressing Practical Challenges in Rural Primary Schools in China

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Abstract:

In the context of globalisation, this article critically examines the role and limitations of rural primary school principals in responding to practical challenges and promoting educational equity. As educational digitalisation and equitable access to quality education become global concerns, urban-rural educational inequality in China provides an important context for examining rural school leadership. Based on a systematic review of recent Chinese- and English-language research on urban-rural educational inequality, teacher retention, educational digitalisation, infrastructure, and resource allocation, the article analyses the main challenges faced by rural primary schools and their implications for school leadership practices. It argues that rural principals can support school improvement through distributed leadership, community participation, and local resource mobilisation, thereby partly addressing limited teacher support, digital resource inequality, and policy implementation pressures. However, leadership effectiveness remains constrained by institutional conditions, local governance capacity, and unequal resource allocation. Rural principals act primarily as coordinators and mediators between policy requirements and school realities rather than "heroic" changemakers. The article concludes that achieving equity in rural education in China requires not only principals' efforts but also more stable institutional support, fairer resource allocation, and long-term policy commitment to rural schools.

Keywords: rural education; educational equity; rural school leadership; educational digitalisation; resource allocation

1. Introduction

The issue of rural education and its link to issues of educational equity, social mobility and educational reform has long been an important concern in the development of global education. In the context of globalization, the issue of educational inequality has become more prominent, as access to quality education, digital resources and social mobility opportunities are increasingly linked to broader technological, economic and policy changes (UNESCO, 2023). Although China has improved the quality of basic education through continuous reform, the long-standing inequality between urban and rural areas still affects rural children's access to high-quality primary education. Rural primary schools still face obvious restrictions in terms of teacher resources, professional development opportunities, infrastructure and technology access, which not only affects students' learning opportunities, but also restricts the further promotion of educational modernisation and educational equity in China.

Against this background, school leadership has been widely regarded as an important factor in improving school efficiency and quality of education. Rural primary school principals, in particular, need to balance the requirements of policy reform, local educational realities, and institutional restrictions in their daily leadership work (Li et al., 2025). At the same time, the digitalisation of education can also be understood as an important educational policy trend in the process of globalisation, that is, the education systems of all countries are responding to the increasing role of



technology in teaching, learning, and school governance. China's education digitalisation reform also reflects the response of national education policies to the global education digitalisation wave. However, compared with urban schools, rural schools often face greater restrictions in terms of resource access, professional support, and community capacity, which makes leadership practices highly dependent on specific local conditions.

This article argues that although rural primary school principals play an important role in meeting educational challenges, their leadership effectiveness is still subject to the structural constraints of broader inequality in educational governance and resource allocation. Therefore, this article aims to identify the main practical challenges facing rural primary schools in China and critically analyse the role and limitations of rural primary school principals in responding to these challenges and promoting educational equity. Through a systematic examination of recent Chinese- and English-language research, this article critically discusses the role positioning of rural primary school principals in the context of globalisation and educational inequality.

2. Background and Questions

2.1 Teacher shortages and rural school development

Existing research on rural education in China has consistently emphasised the problem of uneven distribution of educational resources between urban and rural areas. Rural primary schools generally face challenges such as teacher shortages, limited professional development opportunities, inadequate infrastructure, and unequal access to educational technology. These problems not only affect students' learning opportunities but also the long-term development of rural schools.

Among these problems, teacher retention and educational digitalisation have received special attention in recent research. Rural teachers often face limited professional support and weak technology integration in classroom teaching, which may further widen the educational gap between urban and rural schools (Wang et al., 2025). In addition, teachers' sense of professional identity, self-efficacy and the perceptions of school environment have a significant impact on whether they are willing to stay in rural schools (Chen et al., 2025). These findings suggest that rural school challenges result not only from resource shortages, but also from organisational and institutional conditions.

2.2 Digitalisation policy and the rural resource gap

Educational digitalisation is regarded as an important policy direction to narrow the gap between urban and rural education and promote educational equity. The Chinese government is trying to improve the differences in educational resources between schools in different regions through educational digitalisation policies, platform construction and digital resource sharing (Cao et al., 2024). However, in many rural schools, insufficient infrastructure, limited technical support and wide variation in teachers' technical abilities still seriously restrict the actual results of digital reform.

This indicates a considerable gap between national policy goals and local school realities. Although educational digitalisation policies emphasise technology use and resource sharing, digital reform is difficult to improve teaching and school development if rural schools lack stable infrastructure,



technical support, and teacher professional development opportunities. Therefore, digitalisation is not only a technical issue but also reflects inequality in urban–rural educational resource allocation.

2.3 Policy implementation and leadership conditions

In addition to teacher shortages and digital resource gaps, rural schools are also affected by the institutional environment and policy implementation conditions. Although principal rotation, educational digitalisation and school governance policies aim to improve school management and reduce educational inequality, their effectiveness often depends on local implementation conditions. Zheng et al. (2024) point out that the effectiveness of the principal's rotation policy is closely related to the local implementation environment; if the implementation conditions are insufficient, it may affect the continuity and stability of rural school leaders.

Research on educational leadership increasingly emphasises the situated nature of leadership argues that school leaders are deeply influenced by institutional conditions, resource availability and local governance structures. In a rural environment, principals often need to balance policy implementation, school management and community expectations with limited resources (Li et al., 2025). Studies have shown that distributed leadership, community participation and local resource mobilisation may help rural schools improve teacher support and school development (Andreoli et al., 2020; Schutt et al., 2026). However, rural principals may also face greater work pressure in the process of policy implementation and school improvement, and their leadership effectiveness can be affected by administrative burden, insufficient organisational support and institutional environment (Su-Keene & DeMatthews, 2025).

Based on the above background, this article critically reviews existing Chinese- and English-language research in this field. Rather than collect primary empirical data, it examines the main challenges faced by rural primary schools and the role and limitations of principals through literature on rural education, school leadership, education digitalisation and educational equity in China.

Based on the above background, this paper focuses on three issues:

RQ1: What practical challenges do rural primary schools in China face?

RQ2: What leadership strategies are adopted by rural primary school principals to address these challenges?

RQ3: To what extent can principals promote a more equitable distribution of educational resources in rural schools?

Through these questions, this article further clarifies the possible role of rural primary school principals in promoting educational equity and the structural limitations they face.

3. Critical Analysis

3.1 Teacher retention and professional development

Teacher shortages and teacher mobility are generally regarded as major obstacles to the development of rural schools. With ongoing curriculum reform and educational digitalisation, rural schools face



teacher shortages and the need to improve teachers' technical skills and pedagogical knowledge. Wang et al. (2025) show that the effective integration of educational technology by rural teachers depends on a large extent on their technological pedagogical knowledge and requires targeted professional development support. Therefore, rural teacher retention depends not only on teacher shortages but also on professional development opportunities, school support systems and working conditions.

To address these challenges, rural primary school principals usually adopt leadership strategies aimed at improving school operations and expanding resource capacity. Spillane (2006) argues that distributed leadership should not be understood simply as the personal behaviour of the formal principal but emphasises that leadership practice is distributed across different members, organisational situations and daily practices in the school. Existing research shows that in rural environments, involving more members in school improvement, developing distributed leadership, and establishing a sense of common responsibility will help strengthen schools' capacity for improvement (Andreoli et al., 2020). Therefore, distributed leadership can partly enhance teacher support, organizational cohesion and the school's capacity for development. Another important strategy is to strengthen cooperation between schools, families and local communities. Through community participation and local collaboration, principals may be able to expand the social and organisational resources available to rural schools. Such practises also help to improve teacher retention and school culture by strengthening the relationship between schools and local communities (Schutt et al., 2026).

This article argues that although distributed leadership and community cooperation can support rural teachers, they cannot automatically solve teacher retention problems. Their effectiveness depends on local economic conditions, institutional support, and community involvement. Principals can reduce teachers' isolation and create a more supportive environment through these strategies. However, without stable external resources and continuous professional development, principals alone cannot fundamentally address teacher shortages or limited professional growth. Therefore, rural principals should be seen less as independent reformers and more as leaders coordinating limited resources within structural constraints.

3.2 Digitalisation and resource inequality

Inequitable access to digital resources and poor infrastructures continue to widen the urban-rural education gap. Educational digitalisation policy aims to reduce educational inequality through technology application and resource sharing; however, policy goals may not be directly translated into practical improvements in rural schools. Cao et al. (2024) show that provincial-level educational digitalisation policies in China are characterised by an imbalance in the current use of policy instruments. Supply-side and environment-side instruments are used more frequently, while demand-side policy instruments and feedback mechanisms remain insufficient. This study suggests that although educational digital reform emphasises technical support, platform construction and infrastructure improvement, it pays limited attention to the actual needs of rural schools, teachers' experiences, and local implementation conditions. As a result, digital teaching methods remain difficult to integrate into daily teaching in areas with weak infrastructure and technical support.

In response to this problem, rural primary school principals usually need to respond to the digital reform of education by promoting technological integration and coordinating limited digital resources.



Wang et al. (2025) show that the effective integration of educational technology by rural teachers in China depends largely on their technological pedagogical knowledge. Based on this finding, digital reform depends not only on equipment and platform development, but also on teachers' ability to apply technology in classroom teaching. Therefore, this article argues that principals mainly coordinate existing resources, support teachers' use of digital tools, and balance requirements with school realities.

However, uneven teacher capability, inadequate infrastructure and limited technical support continue to limit the effectiveness of these reforms. The gap between policy expectations for school digitalisation and rural school conditions principals' work pressure. In many cases, principals act more as coordinators balancing policy requirements, teacher capacity and school resources than as leaders able to drive fundamental change alone. Therefore, this article argues that principals' leadership capacity depends not only on personal ability, but also on structural and institutional environments.

3.3 Institutional constraints and policy implementation

The institutional environment affects rural schools, including through the principal rotation policy, which aims to improve governance capacity and share leadership experience; however, the success of this policy depends largely on local implementation conditions (Zheng et al., 2024). In some instances, rural schools lack stable leadership; making it difficult to maintain continuity and creating organisational instability. Administrator must also consider school management, policy implementation, and resources the availability within institutionally restricted environment. This finding suggests that institutional policies are not automatically translated into school improvement, their effectiveness depends on local implementation conditions and school resource environment.

In response to these institutional challenges, principals need to coordinate between policy requirements and the actual conditions of their schools. Su-Keene and DeMatthews (2025) show that principals' work-related stress can accumulate during the process of implementing policies and promoting school improvement, especially when workloads increase and systemic challenges persist. For rural principals, this pressure may be more obvious because they must not only implement higher-level policies but also manage administrative affairs, insufficient resources, and teacher support. Based on this finding, this article argues that principals' leadership strategies reflect not only personal ability but are also organisational support, administrative burden, and policy stability.

Moreover, the principal rotation policy, intended to provide some relief by increasing the number of placements available to principals, could unintentionally reduce continuity of leadership for rural schools and increase the uncertainty of organisations located in rural areas (Zheng et al., 2024). This article further argues that although rural principals can respond to external demands through school management, policy implementation and resource use, their leadership effectiveness remain limited by the institutional environment. In other words, principals do not promote school reform independently environment but must balance policy pressure, administrative tasks and resource constraints.

3.4 Structural limits of principal leadership

The challenges faced by rural primary schools should not be understood only at the individual school. Problems such as teacher retention, digital resource inequality and institutional restrictions reflect broader structural inequalities in educational governance, resource allocation and regional



development. Recognizing this is important for understanding the role and limitations of rural school leaders.

Therefore, educational equity is not only influenced by school leadership but also constrained by broader structural conditions. Hallinger (2011) suggests that school leadership should be understood in relation to specific contexts, and that leadership practice is closely connected to school goals, values, organisational conditions, and shared leadership. Although principals can improve school operations to a certain extent through internal coordination and flexible resource redistribution, they do not have the capability to address educational inequities at a broader structural level. This article argues that an excessive focus on principals' individual responsibility may obscure deeper institutional problems.

The idea of "heroic leadership" implies that principals can solve rural educational inequality through personal ability, but this may oversimplify fundamentally. In fact, rural principals work within constrained institutional environments, and their leadership effectiveness remains shaped by surrounding policies, resources and governance frameworks.

Rural principals have an important influence in coordinating school improvement and supporting educational development. Leithwood et al. (2020) suggest that school leadership influences student learning and school improvement indirectly by shaping school conditions, teacher capacity, and organisational processes. Therefore, this article argues that rural principals' strategic leadership remains constrained by broader rural conditions and institutional environment. In summary, identifying the needs and limitations of rural principals is crucial for rural education reform and achieve educational equity in rural schools in China.

4. Conclusion

This article discusses the main challenges faced by rural primary schools in China, as well as the role and limitations of principals in responding to them. It argues that teacher retention, digital resource inequality and institutional constraints are not isolated school-level problems, but reflect broader issues of resource allocation, policy implementation and local governance.

Rural primary school principals can support school improvement through distributed leadership, community participation, resource coordination and school management. However, the effectiveness of these strategies remains constrained by organisational conditions, policy environments and governance structures. Therefore, rural principals should not be understood as "heroic" leaders who can independently solve educational inequality, but as leaders coordinating within constrained institutional environment.

Achieving equity in rural education in China requires not only principals' efforts but also stable institutional support, fairer resource allocation, and long-term policy commitment. In the context of globalisation, this article also contributes to understanding how educational digitalisation, resource inequality, and policy flows shape leadership practices in basic education. For rural primary schools in particular, principal leadership should be understood in relation to both global educational reform trends and local institutional conditions.



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