

Principal instructional leadership: a systematic review of China 2014-2024

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ABSTRACT

The current research on instructional leadership is predominantly focused on European contexts, with limited studies addressing its application in China. This review aims to explore the instructional leadership practices of Chinese principals, focusing on their unique behaviors and strategies in different urban school contexts. Using the preferred reporting items for systematic reviews and meta-analyses (PRISMA) approach, 483 English-language publications (2014-2024) from five databases: Scopus, Web of Science (WoS), Taylor & Francis, Wiley, and ScienceDirect were analyzed. Deductive thematic analysis focused on three core themes: defining the school mission, managing the instructional program, and developing a positive school climate. The findings reveal that while Chinese principals excel in articulating a clear school mission and vision, they demonstrate limited involvement in curriculum management. These insights underscore the need for targeted professional development to enhance principals' instructional leadership capacities, particularly in curriculum oversight, to improve teaching quality and student outcomes in China.

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1. INTRODUCTION

Over the past few decades, educational leadership research has evolved from a predominantly Western focus to a more global perspective [1]. School principals are increasingly recognized as crucial agents of educational reform worldwide, as they play a central role in implementing reforms and fostering change [2]. In China, this shift has been particularly significant, where the role of school principals has transitioned from an administrative position to one more focused on enhancing teaching quality, especially in urban school settings [3]. The concept of instructional leadership has gained prominence globally as a model for effective school management [4]. This model emphasizes principals' active involvement in curriculum implementation, the professional development of teachers, and the creation of a positive school climate [5].

Prior research indicates that principals' instructional leadership not only has a direct impact on various teacher-related aspects, such as self-efficacy, motivation, and instructional competence, but also exerts an indirect influence on students' academic performance [6]. Consequently, principals are increasingly seen as the most appropriate figures to drive significant changes in school governance, curriculum implementation, and overall educational management [7]. This has elevated the importance of instructional leadership in China, where the development of principal-led instructional strategies has reached an unprecedented level, driven by recent educational policies and reforms [8]. Gómez-Leal *et al.* [9] has argued

that without effective instructional leadership, schools are unlikely to meet their educational objectives, highlighting the critical need for principals to adopt and strengthen their instructional leadership practices.

Despite the global growth in instructional leadership research, studies examining this leadership model within the Chinese educational context are still limited, with most prior research conducted in Western settings [10]. Several recent studies [11]–[13] mentioned that China's unique cultural and policy environment, including the influence of collectivism and respect for authority, as well as recent policies like the “double reduction” policy aimed at reducing student burden, create a distinctive context for instructional leadership. These factors contribute to the challenges and opportunities that Chinese principals face, as they strive to balance policy mandates with instructional goal [14], [15]. Additionally, the economic and regional disparities within China create varying educational landscapes that influence how principals implement instructional leadership practices [16].

This study seeks to address how are instructional leadership practices adopted by school principals in China. Based on the existing literature and contextual factors, the study explores the following hypotheses: i) Principals in developed regions of China exhibit more autonomy in instructional leadership compared to those in less-developed regions (H1); ii) Instructional leadership practices in China are significantly influenced by cultural values, such as collectivism and respect for authority (H2); and iii) Instructional leadership has a greater impact on fostering positive school climates and defining school missions than on managing instructional programs (H3).

This study aims to address these questions and hypotheses by conducting a systematic review of instructional leadership research in Chinese urban schools from 2014 to 2024. By examining the application and effectiveness of instructional leadership behaviors in this context, the study aims to provide insights into how Chinese principals approach key tasks, including defining school missions, managing instructional programs, and fostering a positive school climate. Using deductive thematic analysis, this research will explore the extent to which Chinese principals engage in these practices and identify areas where their involvement may be limited, such as curriculum management and teacher development. The findings of this study not only aim to contribute to the theoretical understanding of instructional leadership in a non-Western context but also offer practical implications for policymakers and educators in China's rapidly evolving educational landscape.

The importance of this research lies in its focus on instructional leadership within the Chinese educational context, which remains underexplored compared to studies conducted in Western countries. While significant advancements have been made in understanding the instructional leadership practices of principals globally, there is limited empirical analysis of how these practices are adapted to China's unique educational policies, cultural values, and regional disparities. By systematically reviewing studies from the past decade, this research fills a critical gap in the literature by highlighting the distinctive patterns, challenges, and successes of Chinese principals in implementing instructional leadership strategies.

The novelty of this study stems from its application of Hallinger's instructional leadership framework to analyze Chinese principals' practices across diverse urban schools. Unlike previous studies that focus predominantly on individual leadership components, this research provides a holistic view by integrating themes such as defining the school mission, managing instructional programs, and creating a positive school climate. Furthermore, the study's use of a preferred reporting items for systematic reviews and meta-analyses (PRISMA) approach ensures methodological rigor, offering a comprehensive synthesis of findings that can inform both policy and practice. By shedding light on the instructional leadership behaviors unique to the Chinese context, this research contributes to a deeper understanding of how global theories are localized and implemented in varying cultural and systemic environments.

2. METHOD

2.1. The review protocol-PRISMA

This study employs a systematic literature review approach, adhering to rigorous protocols for data collection and analysis to ensure transparency and replicability. The design of the study follows the PRISMA guidelines, which support consistency and scientific rigor in the selection, inclusion, and exclusion of studies [17]. The PRISMA framework is widely recognized in systematic reviews for enhancing the reliability and validity of findings by providing a structured, step-by-step approach to literature selection [18]. By following this method, we systematically filtered high-quality studies from extensive databases that align with the research's thematic focus and objectives.

2.2. Formulation of research question

The central research question guiding this study is “How are instructional leadership practices adopted by school principals in China?” This question was formulated to investigate the specific ways in which principals in China implement instructional leadership within the unique cultural, social, and policy-driven context of Chinese education. Research by Ng *et al.* [19] recognized that leadership practices can vary

significantly across different educational systems, this question aims to uncover both common strategies and distinctive approaches utilized by Chinese principals in their instructional roles. By focusing on instructional leadership practices, the research seeks to explore three main aspects based on Hallinger’s instructional leadership framework: i) defining the school mission; ii) managing the instructional program; and iii) developing a positive school climate [20]. These themes allow for a comprehensive analysis of the ways in which Chinese school principals prioritize educational goals, engage in curriculum oversight, and foster supportive learning environments [21]. This analysis is particularly significant in the context of China’s rapid educational reforms, which emphasize quality improvement and equity in education.

Furthermore, this research addresses a critical gap in the literature by examining instructional leadership within a non-Western cultural and policy context. In China, cultural norms such as collectivism and respect for authority heavily influence leadership behaviors, while reforms like the “double reduction” policy create both challenges and opportunities for school principals. By investigating how principals navigate these complexities, the study aims to uncover strategies for balancing policy compliance with instructional objectives, managing diverse stakeholder expectations, and fostering an environment conducive to teacher development and student learning. Ultimately, the findings have the potential to inform leadership training programs, support the development of culturally responsive leadership models, and provide policymakers with actionable insights to enhance instructional leadership practices in China’s evolving educational landscape.

2.3. Systematic search strategies

2.3.1. Database selection and search strategy

For a comprehensive literature collection, this study focused on five major academic databases: Scopus, Web of Science (WoS), Taylor & Francis, Wiley, and ScienceDirect, as shown in Table 1. These databases were chosen for their extensive collections of peer-reviewed research articles across disciplines, including education. Collectively, they provide access to high-quality sources and are frequently used in systematic reviews of educational research, ensuring that the study encompasses a broad scope of relevant findings.

To capture studies specifically relevant to instructional leadership in the Chinese context, researcher employed a systematic search strategy with specific search terms such as “instructional leadership,” “school mission,” “instructional program,” “school climate,” and “China.” Boolean operators (AND, OR) were used to refine the searches further and focus on studies that analyzed instructional leadership in China or that offered comparisons with Chinese educational systems. This approach ensured a comprehensive and targeted selection of literature, allowing the study to include both empirical research and theoretical perspectives that highlight the unique characteristics and challenges of instructional leadership within China’s cultural and policy-driven education system. This strategy initially identified 483 studies, which were then screened using the criteria outlined as presented in Table 2.

Table 1. The search result based on different keywords

Database	Search area	Keywords used	Amount
Scopus	Article, title, abstract, keywords	“Instructional leadership” AND “instructional management” AND “principal management style”	25
WoS	Article, title, abstract, keywords	“Instructional leadership” AND “instructional management” AND “principal management style”	80
Taylor & Francis	Article, title, abstract, keywords	“Instructional leadership” AND “instructional management” AND “principal management style”	34
Wiley	Article, title, abstract, keywords	“Instructional leadership” AND “instructional management” AND “principal management style”	4
ScienceDirect	Article, title, abstract, keywords	“Instructional leadership” AND “instructional management” AND “principal management style”	340
Total			483

Table 2. The search string used for the systematic review process

Database	Search string
Scopus	(“Principals’ Instructional Leadership” OR “Headmasters’ Instructional Leadership” OR “Instructional Leadership” OR “Teaching Leadership”) AND PUBYEAR >2013 AND PUMYEAR <2025 AND (LIMIT-TO (LANGUAGE, “English”) AND (LIMIT-TO (Type of Literature)) AND (LIMITE-TO (COUNTRY, “China”))
WoS	((“Principals’ Instructional Leadership” OR. “Principals’ Teaching. Leadership OR “Instructional Leadership”) AND (“China”))
Taylor & Francis	((“Principals’ Instructional Leadership” OR. “Principals’ Teaching Leadership OR Instructional Leadership”) AND (“China”) AND (PUMYEAR “2014-2024”))
Wiley	((“Principals’ Instructional Leadership” OR. “Principals’ Teaching Leadership OR. “Instructional Leadership”) AND (“China”) AND (PUMYEAR “2014-2024”))
ScienceDirect	((“Principals’ Instructional Leadership” OR. “Principals’ Teaching Leadership OR “Instructional Leadership”) AND (“China”) AND (PUMTEAR “2014-2024”))

2.3.2. Inclusion and exclusion criteria

To ensure the relevance and quality of selected studies, inclusion criteria were defined as: i) Study type: empirical research articles published in English from 2014 to 2024. The 2014-2024 timeframe was selected for this study to capture a decade of significant educational reforms and policy changes in China that have directly influenced school leadership practices. This period encompasses the implementation of critical initiatives such as the “Outline of China’s National Plan for Medium and Long-term Education Reform and Development (2010–2020)” and the subsequent emphasis on enhancing school leadership in fostering quality education. Additionally, the past decade has seen a growing global interest in instructional leadership, providing an opportunity to contextualize Chinese principals’ practices within broader international trends. This timeframe ensures the inclusion of the most up-to-date research and reflects the evolving dynamics of instructional leadership behaviors in response to changing educational priorities and societal needs in China; ii) Context: studies examining instructional leadership practices in Chinese schools or providing comparative analyses with other educational systems; and iii) Content focus: studies addressing one or more of the themes defined by Hallinger’s instructional leadership framework—defining school mission, managing the instructional program, and developing a positive school climate.

Exclusion criteria were equally stringent to filter out studies that did not meet the study’s objectives. These criteria excluded: i) articles lacking empirical data; ii) studies that focused on non-instructional leadership models; and iii) studies outside the Chinese context or with insufficient relevance to Chinese school leadership practices, as shown in Table 3. This rigorous screening process was designed to ensure that the included studies were directly aligned with the research objectives, providing a robust foundation for analyzing instructional leadership practices within the specific cultural, regional, and policy-driven context of Chinese education.

Table 3. The exclusion and inclusion criteria

Criterion	Eligibility	Exclusion
Type of literature	Journal (research articles)	Journals (review), book, book chapters, book series, conference proceedings
Language	English	Non-English
Timeline	2014–2024	<2014
Countries	China	Non-China

2.4. Data abstraction and analysis

After applying the PRISMA screening process, a total of 483 studies met the criteria and were selected for further analysis, as seen in Figure 1. The data extraction focused on key information from each study, including authors, publication year, research objectives, methodological approaches, and key findings related to the three themes of instructional leadership. This systematic approach ensured that the extracted data were comprehensive and relevant, enabling a detailed synthesis of trends, gaps, and insights into the ways instructional leadership is implemented and adapted within the Chinese educational context.

Deductive thematic analysis was chosen as the primary analysis method due to its effectiveness in organizing and interpreting large amounts of textual data according to predefined themes [22]. Hallinger’s instructional leadership model provided a structured framework for this thematic analysis, allowing for an organized categorization of data into three core dimensions: i) defining the school mission; ii) managing the instructional program; and iii) developing a positive school climate. Each study was systematically coded based on these themes to ensure that the analysis was consistent and aligned with the research objectives: i) Defining school mission: studies were analyzed to understand how Chinese principals prioritize the school mission and how this aligns with broader educational policies [23]; ii) Managing the instructional program: data related to principals’ involvement in curriculum and instructional oversight were coded to identify common patterns, particularly any tendency to delegate such responsibilities [23]; and iii) Developing a positive school climate: the analysis of this theme focused on how principals foster a supportive and collaborative environment among teachers and students, a key component of instructional leadership in Chinese schools [23].

The coding process in this study followed a structured and systematic approach to ensure the reliability and depth of analysis. Initially, the primary themes were established based on Hallinger’s instructional leadership framework, which included defining the school mission, managing the instructional program, and developing a positive school climate. Each theme was further subdivided into relevant sub-themes to provide a finer level of detail. For instance, “defining the school mission” included sub-themes such as clarity of school goals and shared vision among stakeholders, while “managing the instructional program” encompassed curriculum development, teacher professional development, and monitoring student performance. Similarly, “developing a positive school climate” incorporated extracurricular activities, teacher-student relationships, and community and parental involvement. After determining the thematic structure, the research materials were reviewed in detail to identify relevant information. This step involved a thorough reading of the articles, focusing on sections such as abstracts, methodologies, findings,

and conclusions to extract data pertinent to the predefined themes. Initial codes were generated by highlighting key phrases or statements, which were then categorized under the appropriate themes and sub-themes. For example, statements such as “principals often focused on clearly communicating their school mission and goals to teachers and parents,” were coded under “clarity of school goals,” while “extracurricular activities were highlighted as a key strategy to build a sense of belonging,” were categorized under “extracurricular activities.”

To enhance the validity of the coding process, similar or overlapping codes were consolidated. For instance, the codes “clarity of school mission” and “shared vision with stakeholders” were merged under “clarity of school goals” to avoid redundancy. Additionally, an iterative process of refinement was applied, wherein all codes were re-evaluated to ensure their alignment with the established themes. The final step involved cross-checking the codes with another researcher to calculate inter-coder reliability, which further validated the consistency and accuracy of the coding process. The coding results revealed nuanced insights into the instructional leadership practices of Chinese principals. For example, it was found that while principals in urban areas prioritized aligning teachers with shared school goals, their counterparts in rural regions placed more emphasis on fostering a sense of belonging through extracurricular activities. These findings not only highlighted regional variations but also underscored the dynamic role of principals in adapting their leadership strategies to contextual needs. Overall, this rigorous coding process ensured that the analysis was grounded in a robust methodological framework, enabling the study to derive meaningful conclusions about the instructional leadership behaviors of Chinese principals.

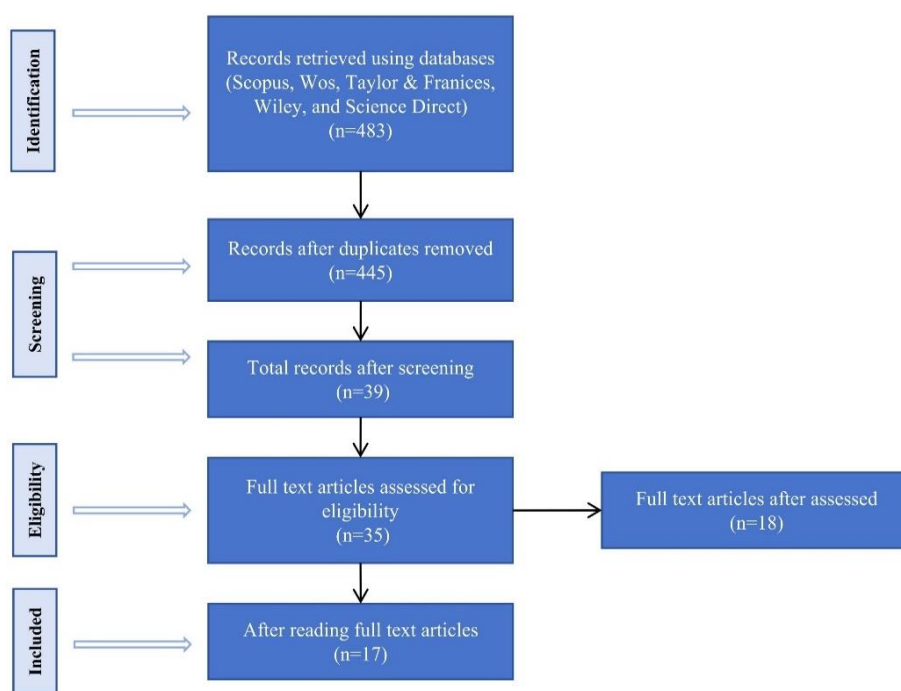


Figure 1. Selection of papers in the PRISMA flow diagram

3. RESULTS AND DISCUSSION

3.1. Background of the chosen article

As can be seen from Figure 2, the selected literature covers studies of multiple provinces in China, including developed regions (such as Hongkong and Jiangsu) and less developed regions (such as Yunan and Henan). More developed areas often focus on how principals improve the overall quality of education through teaching leadership, while less developed areas pay more attention to how to overcome the lack of educational resources and improve educational equity through leadership [23]–[25]. The difference of regional distribution indicates that there may be great differences in the concrete practice of principals' instructional leadership under different economic and cultural backgrounds [21], [26]. This also points out the direction for the follow-up research, that is, it can deeply explore how the principals in different regions play the instructional leadership role according to local conditions to adapt to the different educational needs in different places.

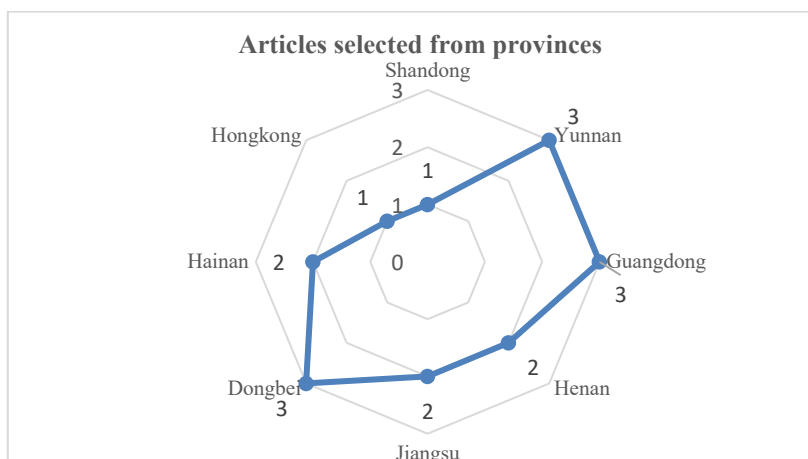


Figure 2. Number of papers selected provinces from where the studies were conducted

The literature selected for this systematic review is based on research conducted between 2014 and 2024, a decade that has seen multiple reforms in China's education policy, particularly with higher demands placed on the importance of school leadership, especially principals, in educational outcomes. The data sources of the review include various journals, covering the research of many provinces in China. This broad geographical coverage allowed the study to capture diverse perspectives and regional variations, providing a more comprehensive understanding of how instructional leadership practices are influenced by local contexts, economic disparities, and cultural factors.

From the year distribution of the literature, the research on principal instructional leadership has increased significantly after 2020. The number of earlier studies (2014-2016) was relatively small, possibly due to the fact that instructional leadership had not yet become a mainstream research direction at that time. After 2017, with the attention to the instructional leadership role of principals at the national level, the relevant research has shown a gradual increase trend, especially in the context of the “double reduction” policy and curriculum reform, and the number of studies in 2021 and beyond has increased significantly.

The year distribution depicted in Figure 3 illustrates a progressive increase in academic attention toward research on principals' instructional leadership over the past decade. This trend highlights a growing recognition of the pivotal role school principals play in enhancing teacher development and improving student academic outcomes. The data reveal that research activity was relatively sparse in earlier years, with only one or two studies published annually between 2016 and 2019. However, a noticeable upward trend emerges starting from 2020, with the number of publications reaching its peak in 2018, 2022, and 2023. This surge aligns with significant education reforms and policy initiatives in China, reflecting the increased focus on principals' instructional leadership as a mechanism for achieving quality education. The enriched research output also underscores how evolving academic perspectives and the urgency to address emerging challenges in education have fueled scholarly interest in this domain. As such, this timeline not only provides insights into the growing body of knowledge but also emphasizes the dynamic relationship between policy shifts and academic inquiry into instructional leadership.

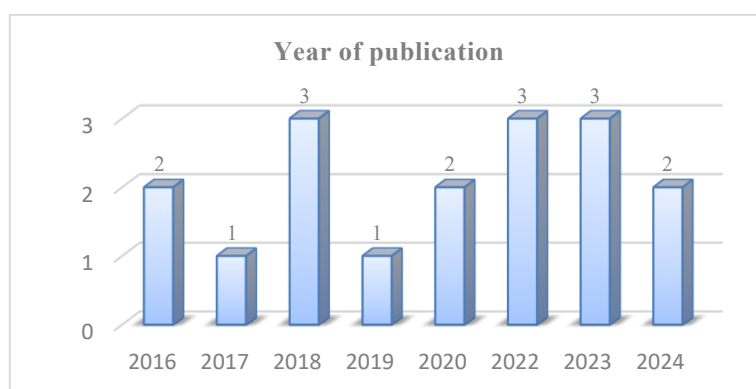


Figure 3. Year of publication

3.2. Main findings

This section analyses three key aspects of principals' instructional leadership in China: defining the school mission, managing the instructional programmed, and creating a positive school climate. These aspects reflect the core elements of Hallinger's model and demonstrate the practices and challenges of Chinese principals in driving instructional quality in their schools. By addressing these interconnected areas, this analysis sheds light on how principals navigate the complexities of educational reforms, cultural expectations, and resource disparities to foster effective teaching and learning environments. Furthermore, these findings highlight the nuanced ways in which instructional leadership is contextualized within China's unique educational landscape, offering valuable insights for both theory and practice.

3.2.1. Defining school mission

In terms of 'defining the school mission', the study generally found that Chinese principals had a strong government policy orientation in setting the mission and goals of their schools, especially in the context of compulsory education and the 'double-decrease' policy, and that principals tended to focus on the overall development of students and quality education as the main goals of their schools [27]–[29]. In particular, in the context of compulsory education and the 'double reduction' policy, principals tend to focus on the holistic development of students and quality education as their main goals [22], [30]. As noted in the literature, principals usually take into account the policy requirements of the local education bureau and set school goals that are in line with the actual situation of their schools [31]. For example, principals in Beijing tend to emphasize the cultivation of innovative abilities and technological literacy, while principals in remote districts pay more attention to students' basic academic performance and moral development [32].

In addition, the study revealed that principals in different regions also take into account the local socio-economic situation and parents' expectations in setting the mission of their schools. For example, in economically developed coastal regions, principals often emphasize international education and independent learning, while in less economically developed regions, principals are more likely to ensure that all students meet basic academic standards [8]. Therefore, when setting the mission of a school, Chinese principals not only need to respond to national policies, but also need to take into account local characteristics and parents' needs in practice.

3.2.2. Managing the instructional program

In terms of 'managing the instructional program', the literature shows significant differences in principals' management styles. In general, Chinese principals show a high level of willingness to guide and supervise the management of instructional programmed [31]. Specifically, some literature suggest that principals are directly involved in teachers' instructional design and programmed implementation, providing professional advice and feedback to help teachers improve their teaching methods [6], [33], [34]. For example, some principals in Jiangsu Province regularly observe classroom teaching and organize group lesson planning for teachers to ensure that the teaching content is in line with the curriculum standards.

However, there is also literature suggesting that some principals prefer to decentralize the management of teaching programmed and give greater autonomy to the head of grade or head of teaching and research team. This practice was particularly prevalent in places such as Hainan and Guangdong, possibly because schools in these areas possessed higher teacher qualifications and principals acted more as resource supporters and coordinators in instructional management [34]. Such practices reflect a nuanced form of instructional leadership, where principals strategically delegate responsibilities to enhance collaboration and focus their efforts on creating a vision, providing resources, and mentoring leaders within the teaching hierarchy to maintain high instructional standards.

It is worth noting that the literature also reveals the practical challenges faced by some principals in implementing the curriculum, particularly from the double burden of teacher load and students' academic pressure. With the implementation of the 'double reduction' policy, some principals need to ensure that the quality of teaching and learning is not compromised while reducing the burden of homework and examinations on students, which puts higher demands on their management skills. This balancing act underscores the complexity of leadership in the Chinese educational system, as principals must innovate and adapt strategies to meet policy mandates while maintaining academic excellence and teacher satisfaction.

3.2.3. Developing a positive school climate

The leadership role of the principal is particularly significant in the area of 'creating a positive school climate' [34]. The literature generally suggests that principals create a positive school climate by building good teacher-student relationships, fostering collaboration among teachers, and promoting home-school communication. For example, a study in Jiangsu Province found that principals were effective in

improving the overall teaching and learning climate in their schools by promoting teachers' professional development while focusing on teachers' job satisfaction and psychological well-being [35].

In addition, the study also showed that principals attached great importance to students' moral education and psychological health in the development of school culture, especially in rural areas, where principals would enhance students' sense of belonging and collective honor by organizing rich and diverse extracurricular activities. These initiatives not only contribute to the overall development of students, but also effectively promote the emotional connection between teachers and students and form a positive campus culture. These activities often included community engagement programs, traditional cultural events, and collaborative projects that allowed students to develop teamwork skills, strengthen cultural identity, and build resilience in challenging circumstances.

Overall, the key findings in the literature highlight that Chinese principals demonstrate distinctive patterns of instructional leadership practice, shaped by a combination of top-down national education policies and the need to address local challenges within their schools. These patterns reflect the principals' capacity for balancing compliance with policy mandates, such as the "double reduction" policy, while innovating and adapting to the specific cultural, social, and economic contexts of their regions. For instance, principals in urban and resource-rich areas often focus on internationalization and innovation in education, while those in rural and under-resourced regions prioritize equitable access and foundational learning outcomes. Furthermore, Chinese principals are particularly noted for their emphasis on defining clear school missions and cultivating positive school climates, even though their direct involvement in instructional program management may be more limited. These trends underscore the influence of cultural factors, such as collectivism and respect for authority, on leadership practices, offering a nuanced perspective on the adaptability and contextualization of instructional leadership within the unique framework of China's education system.

3.3. Discussion

The results of this study show that there are significant differences in the instructional leadership practices of principals in different regions of China. Principals in developed regions are more inclined to internationalization and innovation-oriented educational goals and show higher levels of autonomy, whereas principals in less developed regions are constrained by resources and policies and focus more on the quality of basic education [36]. Such regional differences suggest that the effectiveness of education policies in practice may be affected by the unequal distribution of regional resources.

The frequent changes in China's education policies have had a profound impact on principals' instructional leadership [37]. For example, the 'double-decrease' policy requires principals to reduce the burden on students while at the same time ensuring the quality of teaching and learning, which puts higher demands on principals' management skills [38]. Under this policy direction, principals not only need to have the ability to manage instructional programmes, but also need to effectively balance the relationship between student pressure and educational outcomes. This finding is consistent with Hallinger's model that policy orientation significantly influences principals' leadership styles [39].

In this study, the findings were compared with multiple previous studies to contextualize and validate the insights gained. Specifically, the limited involvement of Chinese principals in curriculum management aligns with the findings of Boyce and Bowers [33], who emphasized that the emphasis on administrative tasks often limits principals' direct instructional engagement. Similarly, the priority given to defining the school mission and vision resonates with previous study [33], who found that mission-oriented leadership is a prominent feature in Asian educational systems. This study also corroborates the conclusions of Leithwood *et al.* [40] that the development of a positive school climate is a universal focus for principals aiming to enhance student and teacher outcomes. However, contrasting evidence from Terosky [41] indicates that in some Western contexts, principals are more actively involved in curriculum management, suggesting that cultural and systemic differences play a significant role in shaping instructional leadership practices.

A comparison with studies from regions such as Southeast Asia and the Middle East further highlights the unique challenges faced by Chinese principals, particularly in balancing national policy mandates, such as the "double reduction" policy, with local school management needs. Moreover, Bush [42] has argued that on rural schools' dependence on extracurricular activities to build a sense of community and belonging echo similar patterns observed in this study. On the other hand, the weak emphasis on teacher professional development identified in this review contrasts with research from Europe [43], where instructional leadership often prioritizes teacher capacity-building as a key mechanism for improving instructional quality.

The practical contributions of this research lie in providing policymakers with insights into the specific areas where Chinese principals excel, such as mission-setting, and where improvement is needed, such as curriculum management. These findings can inform professional development programs tailored to Chinese principals' needs. The empirical contributions include a detailed thematic analysis of instructional

leadership behaviors in urban schools across China, offering a nuanced understanding of regional and cultural dynamics in leadership practices. Theoretically, this study extends Hallinger's instructional leadership framework by applying it in a Chinese context, uncovering unique leadership patterns that differ from those observed in other regions. Methodologically, the use of a systematic review and thematic coding process highlights an effective approach for synthesizing large volumes of literature to draw meaningful conclusions.

China's culture of collectivism and tradition of honoring teachers have had a profound impact on principals' instructional leadership. Research has shown that principals are more concerned with maintaining harmonious relationships when interacting with teachers and students, and tend to promote the achievement of school goals through cooperation and support [44]. This is different from the Western outcome-oriented leadership approach, and thus the moderating role of cultural factors on leadership effectiveness can be further explored in future research.

The findings from the thematic analysis were synthesized to identify overarching trends and unique characteristics of instructional leadership in Chinese schools. By organizing the data within Hallinger's framework, this study was able to draw comparative insights across studies, highlighting both the commonalities and contextual nuances in Chinese instructional leadership practices. This synthesis process also enabled the identification of areas where instructional leadership in China diverges from practices observed in Western contexts, offering valuable insights into the impact of cultural and policy-related factors on principal behaviors.

The findings of this study have significant implications for educational practice and policy in China. First, the limited involvement of Chinese principals in curriculum management suggests the need for professional development programs that equip principals with the skills and strategies to engage more deeply in instructional oversight. For example, targeted training can help principals better integrate national curriculum standards with local instructional practices. Second, the emphasis on defining the school mission and vision highlights the critical role of principals in shaping school identity and culture. Policymakers could formalize frameworks that support principals in developing clear, actionable mission statements and aligning them with measurable educational outcomes. Moreover, the findings regarding the role of extracurricular activities in rural schools emphasize the importance of fostering community connections to improve student engagement and well-being. Educational policies should therefore prioritize resources for extracurricular programs, particularly in under-resourced rural areas. Finally, the challenges related to the "double reduction" policy underscore the need for balanced policy approaches that alleviate academic pressures while maintaining teaching quality. Policymakers should involve principals in the design and implementation of such policies to ensure they are practical and context-sensitive.

3.4. Novelty and contribution of the study

This study offers a novel contribution by systematically reviewing instructional leadership practices in China using Hallinger's instructional leadership framework, which has primarily been applied in Western contexts. Unlike previous studies that focus on isolated leadership behaviors, this research provides a holistic analysis of principals' instructional leadership across different urban regions in China. Additionally, the study integrates educational policy analysis, particularly the impact of China's "double reduction" policy, which has not been extensively examined in instructional leadership literature.

Methodologically, this study applies the PRISMA systematic review approach, ensuring a rigorous and transparent literature selection process, which is relatively rare in studies on Chinese instructional leadership. The research also highlights the regional disparities in how instructional leadership is implemented, comparing developed and less-developed regions, which offers new insights into the contextual application of leadership models. Furthermore, the study contributes to the global discussion on instructional leadership by showcasing how cultural factors, such as collectivism and hierarchical authority structures, influence principals' leadership styles in China. These findings provide valuable implications for adapting instructional leadership models to different cultural and policy-driven environments.

4. CONCLUSION

This study has systematically reviewed the instructional leadership practices of school principals in China, focusing on the dimensions of defining the school mission, managing instructional programs, and creating a positive school climate. The findings underscore the pivotal role of principals in adapting and innovating leadership practices to address regional and policy-driven challenges, such as the implementation of the "double reduction" policy. Additionally, the review highlights the unique contextual factors influencing instructional leadership in China, including collectivist cultural norms and variations in teacher qualifications across provinces.

While this study has provided valuable insights into the instructional leadership practices of Chinese principals, there are several avenues for future research. First, future studies could adopt a mixed-methods approach, combining qualitative case studies with quantitative analyses, to provide a more comprehensive understanding of principals’ instructional leadership. Second, research could explore the impact of specific policies, such as the “double reduction” policy, on principals’ instructional leadership practices and their effectiveness in different regions and school types. Third, more longitudinal studies are needed to examine how instructional leadership behaviors evolve over time and in response to changes in educational policy or societal expectations. Fourth, future research could investigate the perspectives of other stakeholders, such as teachers, students, and parents, to gain a more holistic view of how principals’ leadership behaviors influence educational outcomes. Finally, comparative studies between China and other countries with similar educational challenges could help identify best practices and inform policy adaptations in the Chinese context.

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AUTHOR CONTRIBUTIONS STATEMENT

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Name of Author	C	M	So	Va	Fo	I	R	D	O	E	Vi	Su	P	Fu
Hua Shihui	✓	✓	✓	✓	✓	✓		✓	✓	✓			✓	✓
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- C : Conceptualization
M : Methodology
So : Software
Va : Validation
Fo : Formal analysis
- I : Investigation
R : Resources
D : Data Curation
O : Writing - Original Draft
E : Writing - Review & Editing
- Vi : Visualization
Su : Supervision
P : Project administration
Fu : Funding acquisition

CONFLICT OF INTEREST STATEMENT

Authors state no conflict of interest.

INFORMED CONSENT

We have obtained informed consent from all individuals included in this study.

ETHICAL APPROVAL

The research related to human use has been complied with all the relevant national regulations and institutional policies in accordance with the tenets of the Helsinki Declaration and has been approved by the authors’ institutional review board or equivalent committee.

DATA AVAILABILITY

The authors confirm that the data supporting the findings of this study are available within the article.




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