



Factors Affecting Academic Achievement Gap amongst Urban and Rural Students in Education

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Author's contribution

The sole author designed, analysed, interpreted and prepared the manuscript.

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ABSTRACT

This study focuses on the impact of educational equity policies on the academic achievement gap between urban and rural students in basic education. The literature review method is used here to investigate the state of education and the academic achievement gap among urban-rural students. The literature review reveals that disparities in teacher quality, resource allocation, and policy implementation are central to the urban-rural achievement gap in China. Hence, it is recommended that the government take steps to establish a line of communication with parents, students, and community members. In addition, ensuring targeted expenditure for professional development and resources for rural teachers can boost rural education as well as the retention of teachers.

Keywords: *Educational equity policies; urban and rural students; academic achievement; teaching quality; economic and cultural backgrounds.*

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1. INTRODUCTION

Reducing the education gap between urban and rural areas is a crucial issue in educational equity. Irrespective of the policies introduced to promote educational equity, there are still disparities in academic achievement, quality of teachers, and resource access at a significant level. The disparities are evident in rural regions, as students face restricted access to quality educators, suitable teaching facilities, and favourable socioeconomic conditions. This, most likely, hinders student potential while perpetuating social inequalities. To understand the underlying mechanisms of these disparities, the study draws on Pierre Bourdieu's theory of Capital, which exemplifies that educational access is structured around economic, social, and cultural capital. This framework will help move beyond the surface-level disparities and highlight the way systemically influenced distributions shape educational trajectories for rural students.

This study aims to acknowledge and identify the shortcomings in current approaches and lend insights for increased effectiveness in policy development. The literature review will be structured around key themes, such as allocation of resources, infrastructure, quality of teacher and their professional development, and the effectiveness of policy implementation. The themes identified here will shed light upon the success, challenges, and limitations of efforts made in this domain, alongside offering a concise understanding of complications in achieving educational equity. By doing this, the review will contribute to the knowledge base and ongoing discourse on educational reform via its recommendations to bridge the achievement gap.

2. THEMATIC LITERATURE REVIEW

2.1 Resource Allocation and Infrastructure

In the case of educational equity policies, resource allocation plays a central part in addressing disparities in terms of technology usage, teaching facilities, and the learning materials available to rural and urban schools. Rural schools have been found to lack supportive and necessary resources, limiting the students' learning experiences and learning outcomes. (Li & Xue, 2022) highlighted that despite significant investments to improve infrastructure to improve

rural schools, gaps in the distribution of resources remain due to logistical shortcomings and economic disparities. For instance, preferred funding is received by urban schools, and it leaves rural educational institutions under resources. They also argue government puts an effort to distribute educational materials equitably, but rural schools underperform compared to urban schools (Van Maarseveen, 2021). This can be due to the latter's digital resource access and better-maintained amenities. In addition, the cost of tertiary education for children in rural areas can prove to be a costly move towards further education. In rural areas, the infrastructure of strong network linkages to higher educational institutes and connections to university outreach programs is weak. This possibly indicates a lack of relevant information available for rural higher education students to pursue further education.

Introducing technology in rural schools is a promising venture in narrowing and bridging the gap of a weak network infrastructure connecting rural students to higher educational institutes. The integration of open educational resources (OERs) in rural classes can enhance the engagement and learning outcomes of students (Hilton, 2020). It was also observed that instructional improvement can impact student performance significantly. OERs are teaching, learning, and research resources available for free use and repurposing to the public. Hence, this development in the educational landscape can benefit students financially, help address resource availability, and improve their academic performance. Nevertheless, improvements like these depend on a reliable internet connection and access, as well as teacher training that might be inconsistent in rural areas. These structural barriers need to be addressed by policymakers to ensure that resource allocation efforts materialise well and bring positive changes in educational equity.

2.2 Quality of Teachers and their Professional Development

To boost educational outcomes, the quality of teachers is a critical determinant. In rural areas, the education environment faces challenges in attracting and retaining high-quality teachers, which is due to lower salaries, limited opportunities for professional growth, as well as challenging living conditions. (Zheng et al., 2023) used data from the China Education Panel Survey and found that investing in training

programs for teachers regularly can significantly boost the instructional skills and confidence of rural teachers. This can lead to improvement in student performance as well. These authors found in their study that teacher quality can contribute to the cognitive gap among students. Their findings clearly show that the urban-rural discrepancy in the quality of teachers can account for nearly 9.06% of the average cognitive gap. Hence, teacher quality proves an important aspect in the promotion of educational equity for rural schools. In pedagogy for rural settings, the importance of culturally relevant teaching is imminent. This study explained that teachers who focused on understanding and incorporating localized cultural contexts in their teaching practices can improve their effectiveness in engaging students and improving their learning outcomes(Xiang & Stillwell, 2023). This suggests that programs for the professional development of teachers should also focus on the methods they adopt in the education of rural communities. However, the different informational availability in different regions of China makes it problematic for the cultural contexts to be accounted for in the rural education system seamlessly.

Overall, it can be said that despite progress, notable gaps remain in ensuring access to the rural education system to high-quality teaching. A comprehensive and robust approach is needed to bring about systemic reforms and launch professional development on a valid scale so that the deployment and retention of teachers in underserved areas increase and thrive.

2.3 Socioeconomic and Cultural Influences

To shape the educational outcomes and perpetuate disparities between urban and rural students, socioeconomic and cultural factors play a significant role. Rural students face disadvantages due to their socioeconomic condition, lower family incomes, limited access to extracurricular resources, and limited parental education. Parental involvement (PI) is also a decisive factor in cultural influences on the educational outcomes of children in rural settings. In the relevant research, the researchers used data from eight focus group interviews to find that parents are anxious and concerned about their children's education, specifically in early learning (Li et al., 2022). They also focus on building good relations with teachers and expect their children to be

unconditionally obedient, compliant, and respectful towards them. Recent research identifies that parents are involved in educating their children based on Confucian ideologies and classics(Wang, 2023). They do not want mainstream education to influence their children and are often critical of it as well. These two different perspectives show that the adoption of an education system in rural China can depend upon the cultural ideas held by particular families or communities. Additionally, rolling out educational plans and implementation strategies based on mainstream and examination-oriented state school systems might not benefit the rural domain if the cultural aspects are completely blindsided.

Overall, the research highlighted helps to understand the necessity of developing tailored interventions that address cultural barriers and raise awareness about the long-term benefits of education, along with providing regional-level support because it covers students in rural areas.

2.4 Role of Policy Implementation and its Effectiveness

The efficacy of educational equity policies is largely dependent on their adaptability and implementation in terms of the local contexts. (Xiang et al., 2020) used the Index of Regional Education Advantage (IREA) to evaluate the policy effectiveness aimed at reducing China's regional educational inequalities since 2005. The study found that policy implementation for education in north-east China is better than in its south-west. Additionally, migrant children have a low transfer rate into high schools, which requires policy attention as well. In this context, the theory of educational resources aligns well since it focuses on the allocation of educational resources and their impact on student achievement. Rational allocation involves various factors such as special funds input, educational facilities, curriculum design, and teacher allocation. Due to differences in economic and cultural backgrounds, the distribution and utilisation efficiency of educational resources vary among regions (Madani, 2019). Educational policies need to adapt to regional differences to ensure effective resource allocation and improve student achievement. Hence, to overcome the financial, geographical, and logistical challenges in improving the sustainability of rural education in China, the need for policy intervention and consistent monitoring is crucial.

3. RESEARCH METHODOLOGY

3.1 Research Setting

The papers collected here for the literature review are mainly from China. This is because China's education has become a research focus in recent years.(Yang, 2022). Along with that, the achievement gap in urban-rural setup is focussed on the shortcomings existing in rural education, despite the growth of education in China at a rapid pace.

3.2 Data Collection

Recent research papers were collected here for the literature review. The currency of papers ranges from 2019 to 2024, providing information for the past five years based on the research setting. Keywords, such as achievement gap in China, urban-rural schools, teacher training in rural schools, and others, were searched to find relevant studies for the review.

3.3 Research Design

A qualitative research design has been followed here, particularly focused on conducting a literature review. This has prompted an in-depth study into the different factors that affect the urban-rural achievement gap in China.

4. RESULTS AND DISCUSSION

4.1 Resource Allocation and Infrastructure

Resource disparities significantly contribute to academic achievement gaps between urban and rural students. Research explains that resource scarcity due to systemic inequities and impediments, such as limited access to quality education, inappropriate school atmosphere, and inadequate resources and support, disproportionately affects some student groups, which further contributes to the achievement gap (Celeste et al., 2019). In China, urban schools benefit from stronger state funding and digital access, while rural areas are under-resourced in terms of materials and technology (Li & Xue, 2022). Considering Bourdieu's perspective, it reflects unequal distribution of economic capital, limiting the capacity of rural students to engage with modern pedagogy meaningfully. Government initiatives such as the "Rural Education Revitalization Plan" and the "National

Compulsory Education Funding Policy" are targeted at providing rural schools with funding and equitable resources (Song, 2023). Collaborative effort among parents and equitable allocation of educational resources were found to be essential for the Kwimba district in Tanzania (Fulmes et al., 2024). This is directed at reducing disparity and boosting education among rural students. To compare, in rural Nigerian schools, there is a similar lack of access to electricity and internet, which reinstates transnational patterns of inequality (Olanrele et al., 2020). Therefore, a multi-level policy approach is needed where equity grants for rural education can fund their digital infrastructure, establish learning hubs, provide pedagogy training to teachers, and adopt low-tech OERs. These efforts show inclusive learning environments and bridging resource gaps.

4.2 Quality of Teachers and Professional Development

Teacher quality is a decisive requirement for achieving student outcomes. In rural China, teacher turnover and limited opportunities for professional development can affect their instructional quality and performance directly (Faustino & Kaur, 2023; Zheng et al., 2023). This gap indicates a social and cultural shortfall whereby teachers in underserved areas lack networks, incentives, and adaptive training. The literature review here finds that training programs for rural teachers in China can improve their instructional skills and confidence. (J. Wang et al., 2021) highlighting that providing resources and support to teachers could improve educational outcomes for students. For example, in the South Asian region, India's National Programme on Technology Enhanced Learning (NPTEL) is an OER for students aiming for higher education with a minimal fee for certifications (NPTEL, 2019). Similar open resources for rural students in China could aid teachers and students alike to improve their educational qualifications. Not meeting the satisfaction levels of the rural teachers might lead to their turnover. In this regard, (Guo & Li, 2024) emphasizes that providing financial incentives was a success to some extent in addressing turnover among rural teachers. For this context, policy recommendations include teacher mentoring centres and school-driven professional learning communities. Culturally responsive pedagogy systems can be integrated into teacher training initiatives, aligning with

Bourdieu's focus on narrowing cultural capital gaps.

4.3 Socioeconomic and Cultural Influences

Student academic outcomes are shaped by family income, parental education, and rural cultural values. Therefore, parents in rural China are often guided by Confucian values where they uphold moral upbringing over academic competitiveness (Wang, 2023). This shows mismatched norms and expectations between home and school environments that hinder their engagement with formal and mainstream education. To compare, Nepal's community-driven schools are integrating local values into curriculum design to improve student attendance and parental involvement (Pokhrel et al., 2023). This highlights the pivotal role of cultural foundations in interventions. This is supported by (Yu, 2024), who considered the 2014-2015 China Education Panel Survey and found that socioeconomic status moderates the relationship between student academic achievement, family investment, and student academic performance positively. Additionally, to address this, schools need to build open channels for communication with families so that local knowledge systems can be integrated into their schools. Outreach programs to fund community needs (at the local level) and national policies to encourage flexibility in curricula (at the national level) show diverse cultural contexts. It addresses student engagement as well as educational equity.

4.4 Policy Implementation and Effectiveness

The policy implementation recommendations made for China are rooted in creating an equitable environment of social and cultural capital as per Bourdieu's perspective. A mixed-methods study found that policymakers should focus on equity-based educational interventions so that academic success can improve dramatically (Haxhiu, 2023). It is an attempt to address China's urban-rural educational divides. Policies for rural education and infrastructure enhancement can equip schools with resources and provide adequate support to carry them out (Khalid et al., 2024). Bourdieu's concept gives a transferable understanding of economic, cultural, and social capital and the way it shapes access and, consequently, student achievement.

5. CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The literature review conducted here aimed to highlight ways to improve policy effectiveness. It also focused on the understanding of complications in achieving educational equity in rural regions of China. The theoretical perspective of Bourdieu's theory of Capital provides the needed grounding for this paper. Therefore, this review focuses on China's rural-urban disparities and the challenges identified, limited access to quality infrastructure, low teacher retention, and cultural misalignment, which reflect the Global South contexts such as South Asia and Sub-Saharan Africa. It also provides adaptable policy insights for China's education systems facing similar inequalities, to leverage local cultural capital and improve the rural education investment via targeted and equity-based interventions.

5.2 Recommendations

To mediate the gap in academic achievement in urban-rural regions, the following recommendations can be implemented to improve educational outcomes. First and foremost, establishing an open line of communication with the students, parents, and community members is of great significance. This can help teachers and policymakers work together, and it can contribute to the development of a positive and inclusive school environment. In addition, governments should cater to targeted expenditures for professional development and resources for rural teachers. This investment is crucial as it can be effective in overcoming the obstacles to launching equity-based initiatives for boosting rural education. Therefore, by implementing these recommendations, sufficient support for equity-based initiatives can be provided, which will ultimately help to reduce the achievement gap in China's urban-rural regions.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that no generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

COMPETING INTERESTS

Author has declared that no competing interests exist.

REFERENCES

- Celeste, L., Baysu, G., Phalet, K., Meeussen, L., & Kende, J. (2019). Can school diversity policies reduce belonging and achievement gaps between minority and majority youth? *Multiculturalism, colorblindness, and assimilationism assessed. Personality and Social Psychology Bulletin*, 45(11). <https://doi.org/10.1177/0146167219838577>
- Faustino, A., & Kaur, I. (2023). Educational technology for equality: A review. *Asian Journal of Advanced Research and Reports*, 17(7), 102–107. <https://doi.org/10.9734/ajarr/2023/v17i7498>
- Fulmes, E. Z., Mwila, P. M., & Onyango, D. O. (2024). Effect of educational equity on the quality of education in selected schools in Kwimba District, Tanzania. *Asian Research Journal of Arts & Social Sciences*, 22(3), 72–82. <https://doi.org/10.9734/arjass/2024/v22i3524>
- Guo, Y., & Li, X. (2024). Regional inequality in China's educational development: An urban-rural comparison. *Heliyon*, 10(4), e26249. <https://doi.org/10.1016/J.HELİYON.2024.E26249>
- Haxhiu, Z. (2023). Closing the achievement gap: An analysis of equity-based educational interventions. *Journal of Education Review Provision*, 2(2), 32–35. <https://doi.org/10.55885/JERP.V2i2.154>
- Hilton, J. (2020). Open educational resources, student efficacy, and user perceptions: A synthesis of research published between 2015 and 2018. *Educational Technology Research and Development*, 68(3), 853–876. <https://doi.org/10.1007/S11423-019-09700-4/TABLES/2>
- Khalid, U., Kashif, H., Naseer, F., & Qammar, M. Z. (2024). Shaping national education policy through digital learning: The role of technology in policy-making for educational equity. 2(4).
- Li, J., & Xue, E. (2022). Unpacking the policies, historical stages, and themes of the education equality for educational sustainable development: Evidence from China. *Sustainability*, 14(17), 10522. <https://doi.org/10.3390/su141710522>
- Li, Y., Devlieghere, J., Li, J., & Vandenbroeck, M. (2022). Parental involvement in early childhood education and care: Exploring parents' perspectives in rural China. *European Early Childhood Education Research Journal*, 31(3), 343–358. <https://doi.org/10.1080/1350293X.2022.2098995>
- Madani, R. A. (2019). Analysis of educational quality, a goal of education for all policy. *Higher Education Studies*, 9(1), 100. <https://doi.org/10.5539/HES.V9N1P100>
- NPTEL. (2019). NPTEL, online courses and certification, Learn for free. NPTEL. <https://nptel.ac.in/>
- Olanrele, I. A., Lawal, A. I., Dahunsi, S. O., Babajide, A. A., & IseOlorunkanmi, J. O. (2020). The impact of access to electricity on education and health sectors in Nigeria's rural communities. *Entrepreneurship and Sustainability Issues*, 7(4), 3016–3035. [http://dx.doi.org/10.9770/jesi.2020.7.4\(30\)](http://dx.doi.org/10.9770/jesi.2020.7.4(30))
- Pokhrel, R., Aryal, B., & Bexci, M. S. (2023). Values-based curriculum and pedagogy for 21st century learners: School practices in Nepal. *Interdisciplinary Research in Education*, 8(1), 136–152. <https://doi.org/10.3126/ire.v8i1.56733>
- Song, Z. (2023). Disparity in educational resources between urban and rural areas in China. *Journal of Advanced Research in Education*, 2(5), 64–69. <https://doi.org/10.56397/jare.2023.09.06>
- Van Maarseveen, R. (2021). The urban–rural education gap: Do cities indeed make us smarter? *Journal of Economic Geography*, 21(5), 683–714. <https://doi.org/10.1093/JEG/LBAA033>
- Wang, C. (2023). Resurgence of Confucian education in contemporary China: Parental involvement, moral anxiety, and the pedagogy of memorisation. *Journal of Moral Education*, 52(3), 325–342. <https://doi.org/10.1080/03057240.2022.2066639>
- Wang, J., Yang, Y., Li, H., & Aalst, J. Van. (2021). Continuing to teach in a time of crisis: The Chinese rural educational system's response and student satisfaction and social and cognitive presence. *British Journal of Educational Technology*, 52(4), 1494–1512. <https://doi.org/https://doi.org/10.1111/bjet.13129>

- Xiang, L., & Stillwell, J. (2023). Rural–urban educational inequalities and their spatial variations in China. *Applied Spatial Analysis and Policy*, 16(2), 873–896. <https://doi.org/10.1007/S12061-023-09506-1/FIGURES/7>
- Xiang, L., Stillwell, J., Burns, L., & Heppenstall, A. (2020). Measuring and assessing regional education inequalities in China under changing policy regimes. *Applied Spatial Analysis and Policy*, 13(1), 91–112. <https://doi.org/10.1007/S12061-019-09293-8/FIGURES/4>
- Yang, X. (2022). Difficulties in the development of local education in rural China (Issue 58). Atlantis Press SARL. https://doi.org/10.2991/978-2-494069-31-2_312
- Yu, M. (2024). The relation between family socioeconomic status and academic performance in Chinese adolescents. *Transactions on Social Science, Education and Humanities Research*, 8, 22–33. <https://doi.org/10.62051/jh2c9886>
- Zheng, L., Qi, X., & Zhang, C. (2023). Can improvements in teacher quality reduce the cognitive gap between urban and rural students in China? *International Journal of Educational Development*, 100, 102781. <https://doi.org/10.1016/j.ijedudev.2023.102781>

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