

Strategies for Enhancing the Learning Outcomes of Rural Primary School Students: Collaboration Between Families and Schools

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Abstract

Based on Bronfenbrenner's ecological systems theory, this paper explores strategies for enhancing learning outcomes of rural primary school students, with a specific focus on the synergistic effects between two microsystems - families and schools. The study reveals that rural students' academic performance is directly influenced by these two microsystems, while home-school collaboration as a mesosystem significantly promotes educational achievement. Through analyzing factors affecting rural pupils' learning outcomes from both familial and institutional perspectives, the article proposes concrete collaborative strategies, aiming to provide theoretical support and practical guidance for the development of rural basic education.

Keywords: rural education, primary school students' learning outcomes, basic education, home-school collaboration

1. Introduction

Since China promoted the sharing of high-quality educational resources, it has made progress in narrowing educational gaps among regions, urban and rural areas, and schools, and in improving educational quality. However, there is still much room for improvement in the academic performance of rural students (Hu, Lin, Zhang, 2021). The "China Education Modernization 2035" document identifies the equalization of basic public education services and the promotion of quality and equity as key strategic tasks for the nation's mid - to - long - term educational reform and development. This shows the commitment to achieving fair and high - quality education. Yet, according to a 2024 survey of 100 primary and secondary schools and their students' parents in City M by Qian and Cao, a significant urban - rural gap in student academic performance still exists.

Scholars have looked into the reasons for the urban - rural academic gap. From the student perspective, rural students have less extracurricular study time, less extracurricular tutoring time, and lower self - efficacy than urban students (Zhao, Chen, Sang, 2023). From the school perspective, rural areas' basic education has problems of 重建轻用 and 重物轻人, with few teacher development, learning, and training opportunities (Hu, Lin, Zhang, 2021). From the family perspective, rural and urban families have big differences in educational spending, mainly in extracurricular education (Yan, Xu, 2023). Also, most existing research on the urban - rural academic gap focuses on resource differences, with less attention to academic performance differences. This highlights the need to explore strategies for improving student academic performance.

As research has advanced, the academic community has noticed the link between home - school cooperation and student learning outcomes, making it a key topic in education and sociology (Du, Zhang, Li, 2024). The "14th Five - Year Plan" and the 2035 long - term goals, released in March 2021, and the "Opinions on Further Reducing the Burden of Homework and Off - campus Training for Students in the Compulsory Education Stage," issued in July 2021 by the CPC Central Committee and the State Council, both stress the importance of home - school - community 协同机制. Epstein and Salinas (2004) described home - school cooperation as a new partnership between schools and families to help teachers improve teaching methods and efficiency, enhance parents' child - rearing abilities, and promote students' academic performance. They also explored the benefits of school - based

learning community programs in home - school cooperation, which can improve schools, strengthen family support, and raise student achievement.

Despite its widespread adoption, home - school cooperation has issues in practice, mainly in cognition, content, and communication methods. Home and school parties have insufficient understanding of their responsibilities in home - school cooperation; communication content is mostly learning - focused, with parents more concerned about academic performance than mental health and ideological development (Zhang, 2024); and teachers mostly contact parents to report student behavior or problems, using traditional methods like online communication or parent - teacher conferences rather than home visits or school - organized open days (Chen, Wei, Liao, 2024). The gap in home - school cooperation levels is a major reason for the urban - rural student academic performance gap. Raising rural schools' home - school cooperation to urban levels could narrow this gap by 2.11% (Qian, Cao, 2024). Thus, it is crucial to explore how home - school cooperation can improve the academic performance of rural primary school students.

Home - school cooperation has unique value in improving the academic performance of rural primary school students. It promotes information sharing between home and school, allowing parents to better understand their children's school situation and teachers to tailor teaching to students' interests and backgrounds (Lukk, Veisson, 2007). Additionally, home - school cooperation provides children with emotional support from both school and parents, motivating them to learn (Street, 1998).

2. Ecological Systems Theory and Family - School Elements

The Ecological Systems Theory, first put forward by Bronfenbrenner in 1979, explains the interaction between individuals and their environment. It includes four systems: microsystem, mesosystem, exosystem, and macrosystem. The microsystem refers to the patterns of activities, roles, and relationships that a developing individual experiences in a specific environment. For instance, a student's family (with parents and siblings) or school (with teachers and peers) is a microsystem. The mesosystem denotes the relationships between two or more microsystems. The exosystem consists of systems that an individual does not directly participate in but that still affect their development. For example, a student's family economic and cultural levels, or a school's faculty strength and status, indirectly impact the student. The macrosystem refers to the influence of social ideologies, such as societal values, resource allocation, and customs. From an educational perspective, it involves educational resource distribution and societal views on education.

This study mainly focuses on the concept of the mesosystem to explore the relationship between family and school. As early as the 1950s, developmental psychology attributed children's cognitive growth to environmental differences. Initially, research treated each system as an independent unit without considering their interconnections. Then, Bertalanffy's General Systems Theory (1968) highlighted the relationships between systems. This led to further research on children, revealing the significance of the macrosystem (including social and historical contexts) and diverse understandings of psychological development. Thus, the structure of the Ecological Systems Theory gradually became more complete.

Since the mesosystem focuses on the interaction between multiple microsystems, it has a higher and more direct impact on individuals compared to the microsystem. It also connects the exosystem and macrosystem, which influence individuals. Some research emphasizes the importance of the mesosystem. For example, Kevin and Reginald (2006) stressed that educators should work with parents to help students develop stress - coping abilities at home, which can assist them in solving problems at school. Family - school interaction can have a positive effect on students. Studies also suggest that educators should build trusting relationships with both students and families. Yok and Paat (2013), in their research on immigrant children and families, highlighted the close connection between immigrant families and schools, especially during adolescence, as these factors can reinforce various aspects of life and learning.

Rural families and schools have unique characteristics. Rural families have limited economic resources, and parents may have insufficient educational time investment, backward educational concepts, and incorrect educational methods. Rural schools, compared to urban ones, have weaker infrastructure, teaching conditions, and resources. In terms of values, traditional rural educational ideas, like the "uselessness of reading" concept, hinder educational modernization. Therefore, in the exosystem, the economic and cultural levels of rural families and the faculty strength and status of schools need strengthening. From the macrosystem perspective, society needs to improve rural education. However, first and foremost, it's crucial to focus on the interaction between the two microsystems - family and school - to promote the development of the exosystem and macrosystem.

Some existing research shares similar views. For example, White and Downey (2021) proposed that rural education innovation requires family - school communication, trust, and alliance - building. Wang and Ma (2023) emphasized the family - school collaboration concept, where schools guide parents in proper child - rearing, and parents actively participate in school education to build learning - oriented rural areas. Jin (2021), exploring rural primary education development under rural revitalization, believed that enhancing family - school communication, such as regular parent - teacher meetings, could improve parents' educational thinking. This study, using the mesosystem of the Ecological Systems Theory as the main perspective, explores the interaction between family and school in rural primary education and proposes strategies to improve students' learning effectiveness.

3. Family: The Foundation for Rural Primary School Students' Learning Effectiveness

Family environment, as a microsystem, deeply influences primary school students' psychological and behavioral characteristics and is crucial for their learning effectiveness (Lin, 2023). This paper categorizes parents' educational involvement into direct education and academic socialization. Direct education involves parents directly in their children's learning process, such as through academic tutoring. Academic socialization is indirect and includes parents' educational expectations and parent-child communication (Hill & Tyson, 2009). Additionally, this study adopts Grolnick's (1994) three - dimensional structure of parental educational involvement: cognitive-intellectual involvement (e.g., library visits, museum trips), personal involvement (strengthening parent-child communication), and behavioral involvement (e.g., participating in school activities, helping children develop good study habits).

Educational expectations, part of family educational concepts (Wu & Zhao, 2022), refer to parents' anticipation of their children's academic achievements (Mello, 2008). Some rural families have misconceptions about educational expectations, relying solely on financial investment and leaving educational responsibilities entirely to schools (Zeng, 2023), which may increase children's risk of academic burnout. Parents should correct their educational expectations, follow the "parental 主体" principle, enhance their sense of responsibility, and recognize the significance of family education. There is a significant positive correlation between educational expectations and parental involvement in education, as well as with children's academic performance. Research shows educational expectations impact students' academic performance and learning quality (Lin, 2023), with Pinquart and Ebeling (2020) also highlighting the strong link between positive parental expectations and children's academic success. According to Yan (2023), rural parents' educational expectations are generally mediocre, with disparities based on gender, grade, and parental identity. Rural parents can demonstrate positive educational expectations through cognitive-intellectual involvement, such as buying books and visiting museums to spark their children's interest and motivation in learning.

Parental personal involvement in family education mainly takes the form of parent-child communication. Epstein (1993) defined it as the exchange of information, opinions, feelings, and attitudes between parents and children to solve problems and strengthen emotional bonds. Numerous studies highlight its significant impact on children's education. Ames et al. (1995) found that parental verbal interaction with primary school students at home boosts learning interest. Zhang (2020) revealed that high-quality parent-child communication, where parents actively listen, empathize, and involve children in decision-making, helps children form a positive self-concept and achieve better academically. In rural China, static parental involvement (e.g., providing study materials and places) is more common than dynamic involvement (e.g., communicating about studies or participating in learning activities) (Ren, 2021). Thus, rural parents should increase their involvement in parent-child communication. They should become good listeners, understand their children's emotions and needs, give positive feedback, and collaborate on finding solutions.

Parental modeling and helping children develop good study habits are key aspects of behavioral involvement in family education. Bandura and Walters' (1997) observational learning theory shows that children learn from their parents' behavior. The primary school stage is critical for habit formation. Without parental supervision and positive modeling, children's study habit development may be hindered (Wang, 2023). Pressman, Owens, and Evans (2014) also noted that the more time parents spend modeling, the better their children's study habits and overall academic performance. Some rural parents lack modeling in their children's study habit development due to low personal literacy or long working hours away from home (Yue, 2023). To model effectively, rural parents must first recognize their impact on their children and improve their own behavior. Second, they should spend more time with their children, allowing them to learn and develop habits through observation and imitation.

4. School: The Fundamental Guarantee for Rural Primary School Students' Learning Effectiveness

School environment, as a core microsystem promoting primary school students' all - round development (Cao, 2009), is crucial for personality shaping, interest cultivation, and social adaptation. Referring to the three - dimensional structure of parental educational involvement, this paper divides school participation in primary school students' education into teaching involvement, management involvement, and resource involvement. Teaching involvement concerns teaching activities, management involvement covers educational, student, and teacher management, and resource involvement refers to resource investment for quality improvement. These three aspects are the focus of this study to explore how schools can enhance students' learning effectiveness.

When teachers use diverse teaching methods based on rural students' needs, it is teaching involvement. Teaching method selection is influenced by teaching goals, students' learning foundation, teaching content difficulty, and teachers' experience, knowledge, skills, and innovation (Yuan, 2023). Diversified methods can boost students' memory of knowledge points. For example, storytelling enhances self - concept, and games improve learning memory (Adunola, 2001). To enhance teaching involvement, teachers should choose methods based on goals. For instance, use game teaching to arouse interest and situational teaching to deepen emotional experience (Zhang, 2023). In rural schools, teachers should adjust teaching starting points and difficulty levels according to students' knowledge foundation. For lower - grade students, use more intuitive methods; for higher - grade students, opt for group cooperation and discussion.

Teachers, as the main body of teaching, should not only impart knowledge but also help students establish correct learning values and improve self - efficacy. Self - efficacy, as defined by Bandura and Adams (1997), is the belief in one's ability to complete tasks. Thijs and Verkuyt (2008) found a significant positive correlation between academic performance and self - efficacy. Learning values, which are students' beliefs and evaluations of their learning activities, affect learning strategy choices and academic performance (Mu-Hsuan, 2021). Thus, schools should focus on improving students' self - efficacy and learning values. Teacher support significantly impacts students' academic self - efficacy and performance, with self - efficacy acting as a mediator (Zhang, 2024). Therefore, teachers should enhance students' academic self - efficacy, promote positive self - cognition, and boost learning confidence. Wang, Li, and Xie (2024) noted that learning values partially mediate between cognitive activation teaching and learning strategies. This means more cognitive activation teaching helps students understand learning's value and choose suitable strategies. Consequently, teachers must strengthen their cognitive activation teaching ability, which involves presenting knowledge based on textbooks, student situations, and prior experiences.

Teachers are part of school human resources, which, along with physical resources, constitute school resources. Resource involvement refers to resource investment for quality improvement. Spady (1973) argued that better human resources with desired qualifications directly benefit students' academic performance. School infrastructure and services, including water, electricity, sewage treatment, and teaching facilities like libraries, laboratories, and sports facilities, also influence academic performance (MurilloRomán, 2011). Therefore, schools should prioritize resource involvement. First, optimize internal resources through teaching research to enhance teachers' abilities and upgrade teaching facilities with modern equipment. Second, expand external resources via school - enterprise cooperation, jointly conducting practical projects to enrich students' knowledge sources and stimulate learning interest. Additionally, although boarding doesn't significantly affect rural students' mental health, it may increase their loneliness (Tang, Wang, Gao, 2020). Hence, schools should focus on boarders' mental health, employing psychologists for classes and inviting experts for lectures.

5. Family - School Collaboration: Constructing the Mesosystem

Rural primary school students are closely connected to their family and school environments. Strengthening the collaboration between these two microsystems, or the mesosystem, is crucial for improving their academic performance. This study combines the three parental involvement strategies with the three school involvement approaches to propose ways to enhance rural primary school students' learning effectiveness.

Firstly, establish a mechanism to stimulate rural primary school students' learning interest and promote their academic achievement. Schiefele (1991) pointed out that learning interest determines students' motivation when learning specific content and can predict their learning outcomes. Gottfried et al. (2016) emphasized that parents' cognitive-intellectual involvement, such as providing opportunities for children to explore new things and encouraging them to ask questions, is essential for developing a knowledge-seeking mindset and serves as the foundation for scientific inquiry. They also highlighted that school teaching involvement, including science courses, is a direct way to cultivate students' intrinsic motivation for science and their achievements in it. Therefore, the interest stimulation of rural primary school students in any subject relies on the combined efforts of families and schools. To ignite students' learning interest, parents should understand their children's hobbies, offer

necessary resources and support, like visiting museums or traveling with their children, and encourage exploration and questioning, especially in areas their children are interested in. School teachers can conduct surveys to identify students' learning interests and design corresponding classroom content. They can also employ various teaching methods, such as gamification and situational teaching, to jointly promote rural students' learning interest.

Secondly, utilize school resources to create effective platforms for family-school communication and parent-child interaction. Cattermole and Robinson (1985) proposed that direct contact between home and school is the most effective communication method. Many schools in Canada and the US are establishing systematic connections, like open days, school committees, communication websites, and volunteer programs. Rural primary schools can build websites to enhance communication, especially for parents who cannot attend parent-teacher meetings. These websites can serve as a two-way communication platform, featuring information on school activities, homework, and learning materials, as well as forums for parents to share suggestions. Open days can also facilitate parent-child interaction. However, parent open days face issues like inaccurate parent role positioning, lack of professionalism, and insufficient funding (Wang, 2023). To improve this, parents and teachers should better understand school-based courses, recognizing them as effective avenues for parental involvement. Teachers should respect parents, and surveys can identify students' interests. Establishing special funds for school-based courses can provide material and technical support.

Lastly, form a family-school alliance to help rural primary school students establish learning values and increase their academic self-efficacy. As previously discussed, correct learning values and academic self-efficacy are vital for rural students' academic success. Combined with parents' modeling role in family education and the function of family involvement in predicting students' academic self-efficacy and school participation (Stubbs & Maynard, 2017), a family-school alliance strategy is proposed. Liu et al. (2024) highlighted that parents' positive affirmation, emotional support, and recognition of their children's achievements are crucial for students' self-identity and academic self-concept. To enhance students' self-efficacy, parents should demonstrate positive qualities and attitudes towards learning and setbacks, and affirm their children's accomplishments. Teachers should acknowledge and support students' diverse achievements, using varied reward mechanisms like "Star of Progress" or "Star of Kindness," and sharing success stories to motivate students. To cultivate correct learning values, parents can share their learning strategies and positive habits, and hold regular family meetings for reflection and growth. Schools can develop comprehensive evaluation systems that consider not only academic performance but also moral conduct, teamwork, and innovation.

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