Development of a Strategic Model to Enhance Parent-School Collaboration for Facilitating Smooth Transition to Primary School in Frontier Areas of Yunnan Province, China

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Abstract

The transition to primary school is a critical period for children, particularly in frontier areas of Yunnan Province, China. This research explores this transition's influential pathway from the perspective of parent-school collaboration. It posits that active parental engagement and close collaboration with schools can lead to a more successful transition, though this relationship may be mediated by factors such as parental support, child-parent alienation, and parent empowerment. The study aimed to: (1) empirically test the direct and indirect effects of parent-school collaboration (PSC) on children's transition success using Partial Least Squares Structural Equation Modeling (PLS-SEM); (2) explore the mediating roles of parental support (PAS), parent-child alienation (PCA), and parental empowerment (PEW) in this relationship; and (3) propose and validate a strategic model for facilitating smooth transition. Through literature review and in-depth interviews, four key factors influencing 1st graders' school adaptation were identified: Parent-School Collaboration (PSC), Parental Empowerment (PEW), Parental Support (PAS), and Parent-Child Alienation (PCA). PLS-SEM was employed to analyze the relationships among these factors, including mediating and moderating effects. The study quantified the current levels of PSC, PEW, PAS, and PCA. PLS-SEM analysis revealed significant positive and negative relationships among these factors, confirming the mediating roles of PAS, PCA, and PEW between PSC and transition success. The proposed strategic model was implemented and empirically validated as effective. These findings offer valuable insights for educators, policymakers, and parents to collaboratively ensure a smooth and successful primary school transition. The validated strategic model provides a practical framework for enhancing transition outcomes in similar contexts.

Keywords: Strategic Model, Parent-School Collaboration, Transition to Primary School

Introduction

Empirical evidence indicates that the parent-school relationship has favorable outcomes for children's academic performance, well-being, and social development (Epstein, 2018; Green et al., 2007; Hornby & Lafaele, 2011). Effective parent-school partnership is also a protector for Disadvantaged students, such as low socioeconomic status (SES) students, students with disabilities, students who come from complicated family environments, and students from underdeveloped areas, experience much greater challenges (Banerjee, 2016). Effective work between parents and school not only promotes student success but also prevents children from being negatively influenced by unpredictable life events, such as family changes, community violence, and school bullies (Ozer et al., 2017; Liu et al., 2021).

In recent years, the concept of "Neijuan" or "involution" has emerged in China, highlighting intense pressures within its educational system from resource disparities. This has significantly stressed students and parents, particularly in less developed areas, fueling debates about education's quality and purpose. Issues like school refusal and poor social adjustment are increasingly apparent, indicating deeper systemic problems. The "double reduction" policy of 2021, aimed at lessening homework and after-school tutoring, marks a pivotal attempt to mitigate these pressures. These changes pose new challenges as parents and schools figure out how to use increased free time to promote holistic development beyond academic success. Parents often feel unprepared for their educational role. Zhong et al. (2023) noted higher parental stress regarding children's academic achievements and attitudes than their physical health. Additionally, China's first *Family Education Promotion Law*, effective January 1st, 2022, sets a boundary between school and family education, aiming to instruct parents through legislation and support them via public systems. Thus, bridging parents with schools has become crucial. There is a need for schools and educators not only to identify effective strategies but also for researchers to explore the changing mechanisms of these strategies while working with vulnerable parents. Many 1st graders' parents are unaware of the importance of parent-school collaboration; most maintain merely supervisory relationships with schools and teachers. While many recognize the vital parental role, some feel inadequate in educating their children in Yunnan. Communication between parents and teachers is often one-sided, and trust varies between parents of kindergarteners and lower secondary students (Paccaud et al., 2021). Trust declines as children move to primary schools, complicating effective relationship building with teachers. Additionally, while practical strategies are implemented due to the need for change, theoretical work lags. Numerous studies have shown that parent-school collaboration strongly relates to children's academic success, yet researchers are still probing the mechanisms of change.

There is research conducted to discover barriers for parents to getting involved with children's school effectively and efficiently. In the past, what school administrators and teachers perceive as barriers to engaging families doesn't line up with families' experiences. "Only if our parents received more family education, there is a chance to improve the communication quality," said a head teacher from a rural school in Yunnan, China. Some barriers include time concern, childcare needs, school staff seeming too busy, transportation-related challenges, etc. Developing effective two-way communication requires several layers. First, consider the best method to reach families. Due to the massive amount of research results, schools and teachers believe that children's development history and family background are critical. Lack of communication between parents and children also creates alienation. Living apart may not necessarily create alienation if there is better child-parent communication. Teachers are taking over the parental roles while parents are stepping back. This is not a healthy cooperation between the school and the family.

This study is designed to review the multi-dimensional model of parent-school collaboration; and to understand the changing mechanism through multiple lenses. The research explores impacting factors that are relevant to parent-school collaboration and the transition to primary school, to further understand the changing mechanism.

Objective

To development of a strategic model for facilitating smooth transition to primary school by exploring the influential pathways in frontier areas of Yunnan Province, China

Literature Reviews

Ecological System Theory

Bronfenbrenner's Ecological Systems Theory (EST) is essential in developmental psychology and human ecology, offering a framework to understand human development through environmental interactions (Darling, 2007). EST describes multiple layers that affect development: microsystem, mesosystem, exosystem, macrosystem, and chronosystem. The microsystem, the innermost layer, includes direct interaction settings like family and school. EST's application spans psychology, education, and politics, emphasizing the reciprocal influences between environments and individuals. This theory has guided research on child and adolescent development and educational practices, highlighting the importance of supportive learning environments that integrate various systemic influences (Paat, 2013). In educational contexts, EST elucidates how student adjustment involves interactions across diverse settings, incorporating elements such as parent-child relationships, school support, and community programs (Blandin, 2017).

Parent-School Collaboration

Effective parent-school collaboration boosts academic outcomes, school climate, and parental satisfaction. Enhanced cooperation improves student grades, test performance, school attendance, and social skills, and increases the likelihood of graduation and higher education pursuits (Henderson & Mapp, 2002). However, the degree of parental involvement, such as attending conferences and participating in school events, significantly varies in its impact on student success (Pomerantz et al., 2007). Addressing barriers like economic constraints, cultural norms, and communication issues is crucial for fostering an inclusive partnership (Hornby & Lafaele, 2011). Providing resources and educational opportunities to parents helps support home learning (Avnet et al., 2019). Transparent, two-way communication and educational strategies tailored to diverse family backgrounds promote better parent-school interactions and student support (Tan et al., 2020; Levy, 2024).

Parental self-efficacy and alignment of perceptions between parents and educators about roles and responsibilities significantly influence engagement and student outcomes. Studies show that volunteering and participation in school events correlate positively with student achievement (Boonk et al., 2018; Chu, 2022). Effective collaboration, characterized by teacher commitment and regular, open discussions about student progress, creates a supportive environment and improves adaptation and behavior in young students (Paccaud et al., 2021).

Therefore, by addressing the challenges of parent-school collaboration, including enhancing communication and understanding cultural sensitivities, educators, parents, and policymakers can better support student academic and personal growth, creating an empowered and collaborative educational setting.

The literature identifies three main collaborative models that enhance parent-school interactions:

Epstein's School/Family/Community Partnerships Model

Developed by Joyce Epstein, this model emphasizes six types of involvement to foster comprehensive partnerships: parenting, communicating, volunteering, learning at home, decision-making, and collaborating with the community. Each type aims to integrate families into the educational process, enhancing student support through shared responsibilities and resources (Epstein, 1995; Epstein, 2018).

Dual Capacity-Building Framework for Family-School Partnership

Released by the U.S. Department of Education in 2013, this framework focuses on building capacities both in families and schools to support students' education effectively. It highlights the roles families play as learning supporters, encouragers, and advocates, stressing the importance of skills, knowledge, connections, beliefs, values, and self-efficacy in fostering productive collaborations (Mapp & Kuttner, 2013).

Framework for Interdisciplinary Collaboration

This model underscores the importance of trust and identity in collaborations that extend beyond educational settings, involving various stakeholders including families, schools, and community services. It promotes a level of cooperation where all parties understand and respect each other's contributions, facilitating a cohesive approach to supporting students' educational journeys (Gerdes et al., 2020a).

Addressing the barriers to effective collaboration involves enhancing communication channels, ensuring flexibility in engagement methods, and fostering an inclusive educational environment through cultural competency training and support for socioeconomic diversity. These strategies aim to create a welcoming atmosphere that encourages parental involvement, crucial for the holistic development of students. By implementing these models and strategies, schools can cultivate a supportive and collaborative educational ecosystem that benefits all students, fostering their academic success and social-emotional development.

1st Graders' Transition to Primary School

1st Graders, entering primary school, focus on adapting to new environments. School adaptation involves learning appropriate behaviors (Bandura, 1977) and includes cognitive preparation, social skills, learning quality, and interpersonal relationships (Wen, 2018). Transitioning impacts children's social and emotional development, influencing emotional management, social skills, and decision-making (Rose-Krasnor, 1997). However, challenges arise as children develop logical but limited abstract reasoning (Babakr et al., 2019). Pro-social behavior, positive school experiences, peer competence, and school routine adjustments are essential (Chi et al., 2018).

Mathur's (1999) school adjustment model emphasizes learning preferences, social interactions, and social skills. Learning adjustment balances needs, motivations, and habits, influencing long-term development (Feng, 2002; Yue & Ren, 2021). CASEL's framework identifies core competencies: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making, essential for social-emotional learning (SEL), focusing on emotional management, empathy, and positive relationships (Skoog-Hoffman et al., 2023; Zhou & Ee, 2012; Mantz et al., 2018).

In Yunnan's frontier areas, minority students face language barriers with limited Mandarin exposure, affecting adaptation and academic success (Young, 1941; Meng et al., 2018; Lu, 2018). Language proficiency also impacts global competence and social integration (Valieva et al., 2020), while early language skills influence mental health and school transitions

(Jelen et al., 2023). Teachers often feel unprepared to support non-Mandarin-speaking students, highlighting a need for targeted educational support.

Parental Support

Family support encompasses each family member's oral and behavioral reactions that foster a child's development. Positive family support enhances children's outcomes through improved communication, partnerships, resource provision, and active participation, positively impacting academic and socio-emotional development (Wildmon et al., 2024). Parental support, a multifaceted construct, includes emotional, cognitive, and practical dimensions affecting children's physical, psychological, and academic growth. Challenges and opportunities exist in promoting effective parental support.

Emotional support, a key dimension, involves providing a nurturing environment that promotes emotional well-being and self-esteem. Cognitive support includes activities that stimulate intellectual growth, such as discussions and problem-solving, while practical support covers resources and assistance with daily tasks like homework and chores. Other forms, like instrumental, conditional, motivational, and informational support, are also significant (Beets & Alderman, 2010). Work demands and family commitments can limit the availability of support (Jafarov, 2015), prompting researchers to focus on the family as an entity rather than just the child.

Child-Parent Alienation

Parental Alienation Syndrome (PAS), introduced by Richard Gardner, describes the mental health impacts observed in children during high-conflict divorces, characterized by one parent manipulating a child against the other. This phenomenon, although controversial, emphasizes the significant psychological, emotional, and legal ramifications for all parties involved. Key contributors to child-parent alienation include unresolved parental conflicts and emotional manipulation, which may lead children to align with one parent over the other for emotional security (Harman et al., 2018).

Children affected by parental alienation often suffer from low self-esteem, anxiety, and depression, facing challenges in personal and academic realms. The legal system has increasingly acknowledged the need to preserve a child's relationship with both parents, often intervening in cases of evident alienation. Preventive strategies focus on co-parenting education and early intervention to mitigate these conflicts. Critics argue that PAS oversimplifies intricate family dynamics, while supporters value the recognition of alienating behaviors. This issue is not confined to Western contexts; Chinese scholars note its relevance in scenarios involving left-behind children, where separation from parents, regardless of marital status, affects children's psychosocial health. Studies indicate that robust family-school cooperation can cushion the adverse effects of parental separation on children's social-emotional skills (Qian & Cao, 2023).

In the last, understanding and addressing child-parent alienation requires a comprehensive approach that integrates psychological insights, therapeutic interventions, and legal expertise to protect the well-being of children involved in parental disputes.

Parental Empowerment

The concept of empowerment, introduced by Julian Rappaport (1981), gained attention in management research in the late 1980s as a key component of organizational effectiveness (Conger & Kanungo, 1988). It shifts focus from deficit-oriented to strength-oriented perceptions and is now found in management, continuing education, and self-help. Lee (2001)

categorizes empowerment into individual, interpersonal, and social levels, emphasizing changes within individuals, collaborations, and the environment. Parental empowerment refers to equipping parents with the knowledge, skills, resources, and confidence to actively participate in and make informed decisions about their children's upbringing, education, and well-being (Figueroa et al., 2020a). Hsiao et al. (2018) define it as the degree to which parents feel confident in nurturing their children as expected by society.

Empowerment models are classified as outer-force and auto-force. The outer-force model focuses on the role of external forces in promoting the adapting abilities of the intervening object, while the auto-force model emphasizes exploring an individual's potential and enhancing their initiative and enthusiasm (Lee, 2001). Confident and knowledgeable parents are more likely to engage in various behaviors, including school activities and support at home, which improve student achievement (Chrispeels & Gonzalez, 2006). Parent training programs often emphasize knowledge and self-efficacy as a basis for developing additional participation linked to student performance (Chrispeels & Gonzalez, 2006; Mapp & Gehlbach, 2012). Resource empowerment involves mastering skills to obtain resources for family health and well-being, focusing on individual awareness and engagement with resources. Relationship empowerment requires individuals to identify causal agents in their environments and engage with them to achieve goals, highlighting the significance of interpersonal relationships in psychosocial dynamics (Figueroa et al., 2020b).

Research Methodology

Research Design

This research is a mixed-method design with qualitative and quantitative studies. Parents questionnaires were distributed in the study. Interviews were semi-constructed with intentioned questions. Parents questionnaire includes demographic information, general information, questions on Parent-School Collaboration, Parental Support, Parent Empowerment, and Parent-Child Alienation. The researcher will use the software of smart-PLS analysis to determine the relationship between each variable.

The study will also explain how the PLS-SEM model is tested, including any alternative models considered and the reasons for model modifications. Discuss the results of the model testing, including standardized path coefficients and significance levels. The research involves mediation or moderation analysis. Therefore, the incorporation of these factors will be described.

Sample and Data Collection

According to China's 7th population census, 38.56% of the population lives in 8 out of the 16 areas that are connected to Southeast Asia countries in Yunnan, such as Vietnam, Burman, and Laos. The total population in Yunnan is 47,209,277; 33.12% of the population in Yunnan is minority, and 5.4% of the population is aged from 5-9 years old; which result in an estimated 844,688 minority students between age of 5-9. To be more specific, the estimated population of this study is less than 325,573. Research samples are 1st graders' parents from three cities in Yunnan. Parents are from schools located in Nujiang, Baoshan, and Dehong where many students are minorities, such as Lisu, Dai, Nu, and Jinpo. There are 13 minority groups living in Baoshan; 9 minority groups in Nujiang, and 5 major minority groups in Dehong. Particularly, 92% of the population living in Nujiang are minorities, and 45% of the population from Dehong are minorities. A total of 9 schools were selected to distribute the survey based on principle of convenience.

Measurements

The parent survey contains questions from several scales reviewed and designed based on past studies. The survey consists questions of demographic information, general questions, and questions to measure parent-school collaboration, parental support, parental empowerment, child-parent alienation, and 1st graders' transition to primary schools from parents' perspectives. Each measurement consists of 3-8 sub-scales. Each subscale is paired with 4-5 questions for comprehensive results. Questions are designed on a 7-point Likert scale. Parents will answer questions by making choices from "strongly disagree, mostly disagree, somewhat disagree, neutral, somewhat agree, mostly agree, and strongly agree" according to their experiences with school and students. 713 parents participated in the study, and 627 data were valid to analyze.

Surveys distributed to parents of 1st graders from selected school with supports from head teachers. Parents that could not read were pre-acknowledged to answer questions in person under their willingness. Data was imported into smart PLS 4.0 and SPSS 27 for data analysis. PLS-SEM was used to test the hypothesis. It shows if the data collected provides a response to a study hypothesis. Consequently, to ascertain the relationships between the variables influencing the transition to primary school, a structural equation model was developed and tested.

Ethical Considerations

The research strictly followed the data collection procedure, and survey distribution permission from selected schools' administrators. The study was approved by Stamford International University- Human Research Ethic Committee on May 1st, 2024.

Researching Findings

Demographic Analysis of Respondents

The analysis covered several aspects, including parents' age, education level, marital status, family income, children's gender, primary caregivers. The detailed information is showed in Table 1.

Table 1: Demographic Data of Respondents

Demographic Info.	Item	Frequency	Percentage
Gender of Participants	Male	213	33.9
	Female	414	66.1
Respondents' Age	18 to 25	41	6.5
	26 to 30	171	27.3
	31 to 40	334	53.3
	41 to 50	66	10.5
	51 to 60	13	2.1
	Over 60	2	0.3
Parental Role	Father	204	32.54
	Mother	309	49.28
	Grandparent	22	3.51
	Others	11	1.75
Respondents' Education	Primary and Below	131	20.9
	Junior High School	329	52.5

Demographic Info.	Item	Frequency	Percentage
	High School/Technical Secondary School	110	17.5
	Junior College	32	5.1
	Undergraduate	25	4.0
Marital Status	Single	8	1.3
	Married	559	89.2
	Remarried	49	7.8
	Widowed	5	0.8
	Total	627	100

Validity and Reliability

Convergent Validity

The convergent validity analysis in this study indicates that the measurements of the constructs and their dimensions exhibit high convergent validity, demonstrating that the scale has good explanatory power and internal consistency when assessing these constructs. Firstly, the standardized factor loadings (Loadings) are mostly above 0.7, indicating that each item strongly contributes to its corresponding construct, meaning that the items effectively reflect the dimensions being measured. The composite reliability (CR) exceeds 0.7 across all constructs, with certain dimensions such as knowledge sharing and trust in parent-school collaboration achieving CR values even above 0.9. This reflects the high internal consistency and stability of the dimensions, indicating strong reliability of the scale.

In terms of the average variance extracted (AVE), most constructs have AVE values above 0.5, demonstrating that the constructs explain the majority of the variance in their items, thereby possessing strong explanatory power. Particularly, the AVE values for dimensions such as parent-school collaboration and parental support are relatively high, with some dimensions, such as knowledge sharing and play support, even exceeding 0.8, further validating the extremely high convergent validity of these measurements. This suggests that the scale not only effectively evaluates these constructs but also captures the majority of relevant information with relatively few items.

Overall, the scale in this study exhibits high convergent validity when measuring constructs such as parent-school collaboration, parental empowerment, parental support, parent-child alienation, and school adaptation, ensuring both the reliability and validity of the scale. The measurement results of the scale are stable and credible, providing a solid foundation for future research and practical application.

Table2: Convergent Validity result

Construct	Dimension	Loading	CR	AVE
Parents-School Collaboration	Knowledge sharing	0.901~0.941	0.946	0.860
	Agency	0.800~0.887	0.865	0.707
	Agentive Role	0.821~0.912	0.909	0.782
	Availability	0.869~0.913	0.913	0.792
	Equality	0.837~0.894	0.886	0.740
	Identity	0.814~0.924	0.914	0.789
	Trust	0.861~0.919	0.922	0.807
	Proximity	0.563~0.883	0.871	0.653
Parental Empowerment	CA	0.834~0.886	0.890	0.751
	RE	0.787~0.918	0.907	0.770
	RP	0.765~0.847	0.878	0.671
Parental Support	Educational Support	0.847~0.936	0.920	0.803
	Life Support	0.763~0.866	0.862	0.701
	Psychological Support	0.782~0.854	0.886	0.683
	Play Support	0.886~0.936	0.940	0.838
Parent Child Alienation	Communication	0.834~0.893	0.893	0.755
	Emotional Distance	0.847~0.936	0.920	0.803
School Adaptation	Academic Achievement	0.865~0.915	0.915	0.797
	Responsible Decision-Making	0.668~0.889	0.884	0.701
	Language Adaptation	0.753~0.908	0.885	0.732
	Relationship Skills	0.845~0.910	0.906	0.779
	Self-Awareness	0.870~0.901	0.907	0.780
	Self-Management	0.869~0.901	0.910	0.786
	Social-Awareness	0.886~0.908	0.918	0.801

Discriminant Validity

The discriminant validity of the constructs was assessed using the Fornell-Larcker criterion, which requires that a construct's AVE square root (diagonal values) be greater than its correlations with other constructs (off-diagonal values). This ensures that each construct better explains its variance than shared variance with others. The AVE square roots are: PCA (0.922), PEW (0.795), PS (0.803), PSC (0.872), and SAD (0.876). All exceed their corresponding inter-construct correlations, indicating distinctiveness. For example, PCA's AVE square root (0.922) surpasses its correlations with other constructs (-0.485 to -0.507), confirming its statistical independence.

These findings confirm good discriminant validity, showing that each construct is unique and distinct, supporting the effectiveness of the measurement scale used in this study.

Table 3: Fornell-Larcker criterion

Construct	PCA	PEW	PS	PSC	SAD
PCA	0.922				
PEW	-0.485	0.795			
PS	-0.493	0.635	0.803		
PSC	-0.507	0.653	0.664	0.872	
SAD	-0.493	0.598	0.680	0.590	0.876

Note: PCA=Parent Child Alienation, PEW= Parental Empowerment, PS= Parental Support PSC= Parents-School Collaboration, SAD= School Adaptation

The study assessed discriminant validity using the Heterotrait-Monotrait Ratio of Correlations (HTMT), a modern criterion comparing inter-construct correlations. HTMT values below 0.85 or 0.90 indicate adequate distinction between constructs, ensuring discriminant validity. The HTMT values in this study are all below 0.85, confirming statistical distinctiveness. For example, PCA's HTMT values with other constructs range from 0.556 to 0.629, indicating clear differentiation. Similarly, PEW's highest HTMT value with PS is 0.839, below the 0.85 threshold, showing strong theoretical and statistical separation. PS and PSC have maximum HTMT values of 0.839 and 0.791, respectively, while SAD's values range from 0.556 to 0.782, all within acceptable limits.

Overall, the HTMT results demonstrate good discriminant validity, confirming that the constructs — PCA, PEW, PS, PSC, and SAD — are statistically distinct, ensuring the validity and reliability of the measurement scale.

Table 4: HTMT

Construct	PCA	PEW	PS	PSC	SAD
PCA					
PEW	0.629				
PS	0.591	0.839			
PSC	0.570	0.791	0.729		
SAD	0.556	0.719	0.782	0.620	

Note: PCA=Parent Child Alienation, PEW= Parental Empowerment, PS= Parental Support PSC= Parents-School Collaboration, SAD= School Adaptation

Reliability Analysis

The study assessed reliability using Cronbach's α coefficient, with values above 0.7 indicating good internal consistency. All constructs demonstrated strong reliability. Parents-School Collaboration had a total α of 0.954, with sub-dimensions including knowledge sharing (0.945), trust (0.920), identity (0.910), and proximity (0.818). Parental Empowerment scored α = 0.710, with control and authority (0.887), responsibility and engagement (0.899), and resource and power (0.877). Parental Support showed a total α of 0.801, with educational support (0.942), psychological support (0.931), and play support (0.935). Parent-Child Alienation had an α of 0.824, with communication (0.891) and emotional distance (0.918). School Adaptation achieved α = 0.949, with academic achievement (0.915), relationship

skills (0.905), and self-management (0.909). These results confirm that the scales used in the study have high internal consistency, ensuring reliability and stability for further research.

Hypotheses Test Results

H1: There is a positive relationship between parent-school collaboration and parental empowerment.

H2: There is a negative relationship between parent-school collaboration and child-parent alienation.

H3: There is a positive relationship between parent-school collaboration and parental support.

H4: Parental empowerment positively predicts 1st graders' transition to primary school.

H5: Parental empowerment positively predicts parental support to children.

H6: Parental empowerment negatively explains child-parent alienation.

H7: Parental support to children positively relates to 1st graders' transition to primary school.

H8: Child-parent alienation is negatively related to 1st graders' transition to primary school.

H9: Parental support is negatively related to child-parent alienation.

H10: There is a positive relationship between parent-school collaboration and 1st graders' transition to primary school.

Table 5: Path Analysis

	Path relationship	**β**	**T**	**P values**	**Decision**
H1	PSC -> PEW	0.653	20.707	<0.001	Yes
H2	PSC -> PCA	-0.331	6.548	<0.001	Yes
H6	PEW -> PCA	-0.272	5.606	<0.001	Yes
H3	PSC -> PAS	0.392	8.687	<0.001	Yes
H5	PEW -> PAS	0.310	6.734	<0.001	Yes
H9	PCA -> PAS	-0.143	4.432	<0.001	Yes
H4	PEW -> SAD	0.196	4.298	<0.001	Yes
H7	PAS -> SAD	0.405	8.005	<0.001	Yes
H8	PCA -> SAD	-0.135	4.019	<0.001	Yes
H10	PSC ->SAD	0.120	2.655	<0.001	Yes

Note: PCA=Parent Child Alienation, PEW= Parental Empowerment, PAS= Parental Support, PSC= Parents-School Collaboration, SAD= School Adaptation

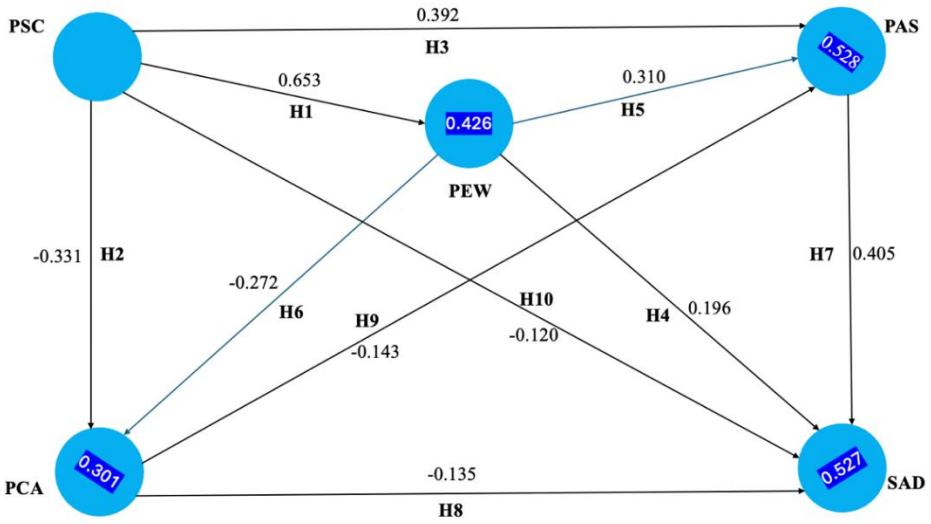

Figure 1: Path Analysis

Mediation Effects Testing

This study, through an analysis of mediation effects, reveals the indirect mechanisms by which Parents-School Collaboration (PSC) influences School Adaptation (SAD) in students. Specifically, PSC exerts multiple indirect effects on students' school adaptation through variables such as Parental Empowerment (PEW), Parent-Child Alienation (PCA), and Parental Support (PS). By examining path coefficients (Std Beta), standard errors (Std Error), t-values, p-values, and confidence intervals (LLCI and ULCI), the study systematically analyzes the complex relationships between these variables and their statistical significance.

Table 5: Assessment of Mediation Effect

Indirect path relationship	Std Beta	Std Error	T	P	LLCI	ULCI
PSC -> PCA -> PAS -> SAD	0.022	0.006	3.498	0.000	0.011	0.035
PSC -> PEW -> PCA -> SAD	0.027	0.008	3.651	0.000	0.014	0.043
PSC -> PEW -> PAS -> SAD	0.093	0.016	5.722	0.000	0.062	0.125
PSC -> PEW -> SAD	0.153	0.031	4.960	0.000	0.095	0.216
PSC -> PAS -> SAD	0.176	0.029	6.031	0.000	0.122	0.236
PSC -> PCA -> SAD	0.051	0.014	3.676	0.000	0.026	0.080
PSC -> PEW -> PCA -> PAS -> SAD	0.012	0.004	3.279	0.001	0.006	0.019

Note: PCA=Parent Child Alienation, PEW= Parental Empowerment, PS= Parental Support, PSC= Parents-School Collaboration, SAD= School Adaptation

The Proposed Strategic Model

Based on the model constructed in the study, the connotations involved in parent-school collaboration, parental support, parental empowerment, and parent child alienation were selected for proposing strategic model. the diagram outlines a comprehensive strategy to promote a smooth school transition for 1st graders, with a central focus on fostering effective parent-school collaboration and empowering parenting (see Figure 3). The model emphasizes the importance of creating a positive collaboration climate, where both parents and school staff respect each other's personal values, maintain open communication, and foster deeper understanding. Strengthening parental support plays a crucial role, encouraging parents to provide personal space for their children, value playtime, demonstrate emotional care, and actively participate in daily educational activities. Ensuring the child's success involves practical actions like building two-way trust, utilizing resources, and recognizing the child's unique potentials. Empowering parenting is highlighted as essential for reducing children's anxiety and alienation, emphasizing the importance of staying attuned to emotional needs and maintaining open communication. Lastly, enhancing parenting efficacy through daily care, emotional sharing, and providing companionship is vital to supporting the child's overall well-being. Together, these elements work to ensure a seamless and supportive transition into school life through strong parent-school partnerships and proactive parenting.

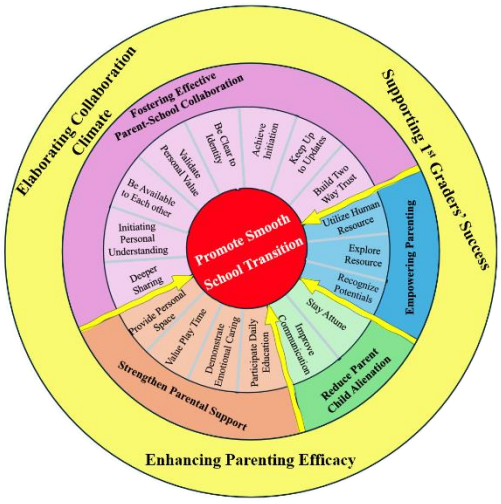

Figure 2: Proposed Strategic Model

Discussion

The findings of this study provide important insights into the relationships between parent-school collaboration (PSC), parental empowerment (PEW), parental support (PAS), parent-child alienation (PCA), and school adaptation (SAD). These findings align with existing literature that emphasizes the importance of active parent engagement in the school environment and the positive impact it has on children's educational outcomes (Epstein, 2011; Hoover-Dempsey et al., 2005).

In particular, the positive relationship between PSC and PEW highlights how a strong partnership between parents and schools can empower parents to be more effective in supporting their children's learning and emotional well-being. This result reinforces the notion that when schools actively involve parents, parents feel more competent and confident in their

role (Hornby & Lafaele, 2011). Similarly, the positive influence of PEW on PAS further supports the idea that empowered parents are more likely to provide substantial and meaningful support to their children, enhancing their overall school experience. Moreover, the negative relationship between PSC and PCA indicates that stronger parent-school collaboration reduces the likelihood of parent-child alienation. This finding is consistent with studies that suggest open communication and joint problem-solving between parents and schools can help parents stay connected with their children during critical transitional periods, such as entering a new school (Boonk et al., 2018). Additionally, PEW's negative influence on PCA implies that as parents become more empowered, they are less likely to experience alienation from their children. Empowered parents tend to engage more positively and constructively in their children's lives, fostering stronger emotional bonds and reducing the risks of alienation (Jones & Prinz, 2005). The data also demonstrate that parental support (PAS) is a key factor in promoting school adaptation (SAD), which supports the well-established idea that parental involvement plays a crucial role in helping children adjust to school (Fan & Chen, 2001). In contrast, parent-child alienation (PCA) negatively affects both parental support and school adaptation. This confirms previous research showing that strained parent-child relationships can hinder children's ability to thrive academically and socially within the school environment (Hoglund et al., 2015). Parents who feel capable and knowledgeable are better equipped to support their children's adaptation to new academic and social environments, reducing stress and enhancing children's resilience (Bower & Griffin, 2011). Overall, these findings underscore the importance of fostering strong, collaborative relationships between parents and schools while also empowering parents to support their children's development effectively.

This study advances and critically refines existing theoretical frameworks by revealing both the dynamic relational mechanisms and structural constraints that shape developmental and educational processes. While Bronfenbrenner's Ecological Systems Theory has traditionally emphasized system-level interactions between microsystems like family and school, our findings demonstrate that the qualitative nature of mesosystemic relationships - particularly the depth of parent-child and teacher-parent interactions—serves as a pivotal mediator of developmental outcomes, suggesting the need to move beyond structural linkages to examine how microsystems interrelate. Similarly, our work expands Epstein's School - Family-Community Partnership Model by uncovering how systemic power asymmetries and unequal resource distribution can undermine the model's assumption of equitable collaboration, arguing for an explicit integration of structural equity considerations into partnership frameworks. Most innovatively, we extend Empowerment Theory by documenting robust bidirectional empowerment processes between teachers and parents, where knowledge and agency are mutually reinforced through dialogic exchange - a significant departure from conventional unidirectional conceptualizations of professional-to-parent empowerment. Together, these contributions advocate for more dialectical theoretical models that simultaneously account for structural barriers and the transformative potential of relational agency in ecological systems, offering a more nuanced understanding of how individuals and institutions co-construct developmental pathways.

Conclusions

To enhance the transition of first graders into school, this study focuses on parent-school collaboration. The research shows that improved communication and cooperation between parents and schools boost parental involvement and educational outcomes, thereby aiding children’s adaptation to school. The research introduces a school adaptation model that

incorporates aspects of parent-school collaboration, including knowledge sharing, parental agency, and resource equality. This model supports theoretical development on transition strategies and underpins practical policy-making.

Strategies developed from the study include optimizing parent-school interactions, improving access to educational resources, and boosting parental educational capabilities. Initial strategy applications, such as multilingual materials, flexible meeting scheduling, and modern technology use, have shown positive results in enhancing first-grade adaptation. The analysis identifies strong parent-school collaboration as a key factor in successful school adaptation, demonstrating significant positive relationships between collaboration, parental empowerment, and school adaptation, while reducing parent-child alienation. These findings corroborate existing research on the importance of parent involvement in improving educational outcomes.

This study proposes three policy priorities to enhance school transitions in frontier regions. First, legislative reinforcement of the *Family Education Promotion Law* should institutionalize parental training programs and resource allocation, particularly for low-income families. In addition, structural integration of kindergartens and primary schools under unified educational frameworks is critical to standardize transition protocols. Last and also the most important, formal mandates requiring schools to develop parent-collaboration plans - with specific benchmarks for communication frequency and joint decision-making - will elevate collaboration from voluntary practice to accountable policy. The core finding shows equitable collaboration requires top-down support and ground-level action. These systemic interventions achieve both. Suggestions for usage include: 1) Culturally tailored teacher workshops integrating multilingual resources (e.g., Lisu/Dai language materials); 2) Monthly parent - teacher co-design sessions redistributing agenda-setting power to marginalized groups; 3) Community resource hubs partnering with local community supporters to provide after-school academic support; Crucially, Bidirectional empowerment requires teachers to value parental cultural assets while equipping parents with educational advocacy tools.

Based on the findings and limitations of this study, several potential directions for future research may be considered. 1) Longitudinal or quasi-experimental designs could be used to capture the evolving impact of parental engagement and school collaboration on student adaptation over time. 2) The integration of digital tools, including communication apps and virtual platforms, may be explored for their potential to enhance parent-school interaction. 3) Policy-related studies could examine how educational policies promoting parental involvement are implemented and adapted in different contexts. 4) Interdisciplinary research within inclusive education settings could evaluate how collaborative models involving teachers, specialists, and parents support diverse student needs. 5) Further studies may assess the specific effectiveness of school adaptation interventions and explore which components yield the most sustainable outcomes.

Overall, the study confirms the vital role of parent-school collaboration in facilitating smooth transitions to primary education and provides a grounded, practical approach for educators and policymakers to support young learners effectively.

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