

GOVERNING QUALITY: LEVERS FOR EFFECTIVE PRESCHOOL TEACHER PROFESSIONAL GROWTH IN SHANDONG PROVINCE, CHINA

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Abstract

This study explored the systemic governance issues of professional development for preschool teachers in Shandong Province, China, against the backdrop of the transition toward high-quality preschool education. Employing a mixed-methods research approach, the study conducted a questionnaire survey of 500 preschool teachers in three cities: Linyi, Weifang, and Jining, and in-depth interviews with 10 teachers. It systematically analyzed four key governance levers: teacher qualifications, professional training, kindergarten scale, and principal leadership. The findings reveal that the roles of these levers are not isolated but intertwined: teacher qualifications serve as the cognitive foundation for development, but their potential is moderated by training opportunities and kindergarten scale; professional training acts as a key driving force, yet faces the challenge of diminishing marginal returns; and principal leadership emerges as the core catalyst for activating the entire system, profoundly influencing policy implementation and teachers' innovative practices. The innovation of this study lies in the construction of an integrated system governance analysis framework, which is used to propose specific policy recommendations to optimize the synergistic effects of these levers. These recommendations aim to provide empirical references for enhancing the overall governance effectiveness of China's preschool education.

Keywords: System Governance, Early Childhood Teacher Professional Development, Teacher Knowledge, Teacher Behavior, Teaching Innovation

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Introduction

In the global wave of enhancing national core competitiveness, China is undergoing a profound transformation from a major player in preschool education to a leading power in the field, with its strategic focus shifting from pursuing “scale expansion” to “quality improvement.” This transformation has brought the spotlight onto the core elements that determine the quality of care and education—the professional competence of preschool teachers. Whether teachers possess solid professional knowledge, engage in appropriate teaching practices, and demonstrate sustainable innovative teaching capabilities directly impacts the achievement of educational objectives and the comprehensive development of young children (Elliot & Kagan, 2020). However, traditional management models that primarily rely on administrative directives, standardized assessments, or fragmented experience sharing are increasingly inadequate for addressing the complex demands of teacher professional growth in the new era. These models often overlook the complex interplay among multiple factors influencing teacher development and fail to effectively stimulate teachers' intrinsic potential. To address this challenge, this study introduces and constructs a “system governance” analytical framework. This framework transcends the traditional “management” perspective, viewing teachers' professional growth as a complex ecosystem in which multiple governance levers are interdependent and dynamically influence one another. The core objective of this study is to reveal the internal operational logic of this governance system and to clearly address the following two research questions: 1. What is the overall status of preschool teachers' professional growth (as manifested by teacher knowledge, teacher behavior, and teaching innovation) in the specific context of Shandong Province, China? 2. How do the four key governance levers—teacher qualifications, quarterly training frequency, kindergarten size, and principal leadership style—systematically and comprehensively influence teachers' professional growth levels? To address these questions, this study first presents an integrated theoretical framework combining system governance and teacher development theory. Subsequently, it analyzes the distinct educational ecosystems of three typical cities in Shandong Province—Linyi, Weifang, and Jining—to provide a rich localized context for the research.

Theoretical Background

The theoretical framework of this study is a multi-level integrated system that places the classic Teacher Development Theory (TDT) within the broader concept of systemic governance, constructing an analytical model that can explain both the micro-level mechanisms of individual growth and the macro-level influences of organizations and policies. This integrated framework provides the theoretical basis for this study to examine how four key governance levers systematically influence teachers' professional growth.

Teacher Development Theory (TDT) provides a foundational framework for understanding the intrinsic patterns of teacher professional growth. It emphasizes that teachers' professional development is a complex, dynamic process that spans their entire career. We align the core concepts of this theoretical framework with the four governance levers examined in this study: Shulman's (1987) “pedagogical content knowledge” (PCK) theory provides the core explanatory power for this. This theory reveals that expert teachers not only master subject content but can also transform knowledge into teaching strategies suitable for specific young children. This directly guides us in why we decompose “teacher knowledge” into three

dimensions: subject knowledge, pedagogical knowledge, and educational psychology knowledge. In the context of China's policy to enhance the educational qualifications of its teaching workforce, Shulman's theory helps us understand that teacher qualifications (such as associate's, bachelor's, or master's degrees) are not merely labels; they represent the depth and breadth of a teacher's initial PCK structure, serving as the cognitive “foundation” for their subsequent professional development.

The theory of teacher development stages proposed by Day (1999) and other scholars provides a perspective on this. This theory suggests that teachers have different development needs at different stages of their careers (e.g., novice stage, proficient stage). This inspires us to recognize that the effectiveness of training lies not only in its content but also in whether its frequency and systematic nature align with teachers' developmental stages. In China, training programs range from the national “National Teacher Training Program” to local kindergarten-based professional development, with diverse formats but varying quality. Therefore, this study draws on this theory and uses “quarterly training frequency” as a key variable to explore whether sustained external support can systematically promote teachers' knowledge updating, behavioral improvement, and innovative practices.

The concept of “professional capital” proposed by Hargreaves and Fullan (2012) provides an analytical framework for this study. This theory emphasizes that teachers' growth depends not only on individual human capital but also on social capital built through interactive collaboration. The scale of kindergartens directly influences the formation of professional capital: large kindergartens have abundant resources but may lead to “departmentalized” teacher interactions; small kindergartens have close relationships but may become “professional islands.” This theory helps us analyze how kindergarten scale functions as an environmental lever, regulating teachers' interactive behaviors and collaborative patterns. This is crucial for understanding the significant scale differences between urban and rural, public, and private kindergartens within Shandong Province.

Fullan (1991, 2016) provides profound insights into this through his theory of educational change, arguing that without strong leadership and a supportive culture, any top-down reform is unlikely to be sustainable. This theory directly guides our analysis of principals' leadership styles in this study. For example, when promoting teaching innovation, a “transformational” principal can create a ‘safe’ culture that encourages teachers to take risks through visionary motivation and intellectual stimulation, thereby effectively promoting the improvement of teachers' behavior and the emergence of teaching innovation. In contrast, a “transactional” principal may reinforce teachers' execution behavior through reward and punishment mechanisms, but may suppress their intrinsic motivation for innovation.

In China's current context, where top-down policy implementation coexists with bottom-up professional development needs, Fullan's theory is particularly important. It helps us understand how principals serve as a bridge between macro policies and micro practices, and how their leadership directly determines the effectiveness of other governance levers.

Context of early childhood education in Shandong province

This study selected Shandong Province as the case study region not only because it is a major province in China in terms of population, economy, and education, but also because its preschool education system is highly representative of the scale and complexity of such systems nationwide. Shandong Province's preschool education system is vast; for instance, the three prefecture-level cities selected for this study (Linyi, Weifang, and Jining) alone have

approximately 7,500 kindergartens and over 77,000 employed teachers. This study carefully selected Linyi, Weifang, and Jining, three cities with distinct economic models, cultural traditions, and educational resources. Together, they form an ideal “microcosm” for observing the challenges and practices of China's preschool education transition period:

Linyi: A mixed-ecology driven by commerce and trade. As Shandong's most populous city, Linyi is renowned for its vibrant private economy and commerce and logistics industries. This economic foundation has shaped its preschool education landscape: private kindergartens account for a high proportion (approximately 65%), small-scale kindergartens are the most numerous (50%), and market-oriented operations are prominent. Correspondingly, the teacher workforce exhibits relatively high mobility (18% annually), and principals tend to adopt a “transactional” leadership style focused on cost control and parent satisfaction.

Weifang: A high-quality, balanced ecosystem driven by educational reform. Weifang is a nationally renowned educational reform pilot zone with balanced economic development, providing a solid foundation for educational investment. Its preschool education system is characterized by high quality and universality, with public kindergartens covering over 60% of the population, the highest proportion of large-scale kindergartens (25%) among the three cities, and the highest proportion of teachers holding bachelor's degrees or higher (70%). A comprehensive teacher training system (with an average of over five training sessions per year) and a strong research and development atmosphere have led principals to favor an innovative “transformational” leadership style.

Jining: A Stable Ecosystem Shaped by Confucian Culture. As the birthplace of Confucius and Mencius, Jining's deep-rooted Confucian cultural traditions have profoundly influenced its educational philosophy and practices. The preschool education system here boasts the most stable teacher workforce (with an annual turnover rate of just 9%), though educational attainment levels are relatively lower (55% hold associate degrees or below). In this culture emphasizing harmony and stability, principals tend to adopt a “service-oriented” leadership style that prioritizes caring for and supporting teachers' needs.

Key Levers of Systemic Governance

This study focuses on four core governance levers: teacher qualifications, professional training, kindergarten size, and principal leadership.

1. **Teacher qualifications:** In Shandong Province, improving the overall educational attainment of the teaching workforce, particularly through the promotion of “specialized-to-bachelor's” programs, has been an important policy direction in recent years to optimize the “existing capital” of the teaching workforce. This study collected data on teachers' highest educational attainment (vocational college, bachelor's degree, master's degree, and above) through a questionnaire survey and will use multivariate analysis of variance (MANOVA) to examine whether teachers with different qualifications exhibit significant differences in their three core outcomes: professional knowledge, teaching behavior, and teaching innovation.

2. Although highly educated teachers have advantages in theoretical knowledge, teacher qualifications alone are insufficient; they are a relatively static lever. The realization of their potential highly depends on the activation of other dynamic levers. Expert interviews conducted in this study indicate that kindergarten size moderates the impact of qualifications: in larger kindergartens, teachers with higher educational qualifications can better leverage abundant research resources to deepen their advantages; however, without proactive learning awareness, they may be marginalized by rigid institutional frameworks. Additionally, the leadership of kindergarten principals is crucial; “transformative” principals can establish learning communities to effectively assist teachers with lower educational qualifications in addressing knowledge gaps and narrowing capability disparities.

3. Professional training: Shandong Province has established a multi-tiered training system through the comprehensive implementation of the “National Teacher Training Program” and kindergarten-based training projects at the municipal and county levels. However, the challenge lies in shifting from a focus on “quantity” to ensuring ‘quality’ and avoiding fragmented, practice-disconnected training.

This study uses the indicator “number of quarterly training sessions” to quantify the frequency of teachers' participation in on-the-job training and analyzes its impact on three dimensions: knowledge, behavior, and innovation. Additionally, through in-depth interviews, we can gain a more detailed understanding of how training content and methods specifically impact teacher development. Expert interviews clearly pointed out the “diminishing marginal effects” and even the “ceiling effect” of training. The effectiveness of training as a lever is first constrained by the educational background of teachers. While frequent training can temporarily fill knowledge gaps for teachers with lower educational levels, without the support of their existing knowledge structure, deep internalization and behavioral transformation become extremely challenging. Second, the conversion of training outcomes is highly dependent on the leadership of kindergarten principals. A “transformative” principal can integrate external training content with in-house research and establish a “training-practice-reflection” loop to maximize training outcomes. Under “transactional” leadership, however, training may become a formality that teachers participate in merely to fulfill tasks.

4. Kindergarten scale: Within Shandong Province, there are regions like Weifang, which primarily have large and medium-sized public kindergartens, as well as cities like Linyi and Jining, which have a large number of small and private kindergartens. This diversity provides a natural setting for studying the scale effect.

This study categorizes kindergartens based on the number of classes into small (≤ 5 classes), medium (6 - 11 classes), and large (≥ 12 classes) to systematically analyze the impact of scale as an environmental variable on teacher development. The challenges of scale are dual in nature. Large kindergartens typically have more abundant resources but also face risks such as bureaucratization, high communication costs, and the formation of “information silos.” Small kindergartens have close interpersonal relationships but are prone to becoming “professional islands” due to resource shortages and limited perspectives. In large kindergartens, principals need to overcome communication barriers by establishing “weak relationship activation mechanisms” (such as interdisciplinary research and development) and “flat project management”; in small kindergartens, principals need to actively build “cross-school development alliances” to break through their own resource constraints.

5. Principal leadership: This study used a questionnaire to ask teachers to judge their principals' leadership styles (transformational, transactional, or service-oriented) based on typical management behaviors (such as whether they encourage innovation or provide personalized support), thereby analyzing the systematic impact of different leadership styles on teacher growth.

Principal leadership is the hub that connects and activates all other levers. It profoundly influences the effectiveness of training, determines whether scale advantages can be leveraged and disadvantages avoided, and maximizes the potential of teachers with different qualifications. For example, expert interviews in this study revealed that “transformational” leaders, through intellectual stimulation and vision-building, are most effective in promoting reforms and innovations in teaching methods; while “servant” leaders, by providing resources and emotional support, are most conducive to the implementation of personalized teaching. The challenge lies in aligning leadership styles with the organization's developmental stage. Adopting rigid “transactional” leadership in institutions requiring breakthrough

innovation, or forcing “ transformational ” leadership in rural institutions with weak foundations, may produce counterproductive results.

Constructing a High-Performance Governance System

Based on a deep understanding of the four major levers of governance and their complex interactions: teacher qualification, professional training, school size and leadership, we can clearly see that enhancing the professional growth of China's early childhood teachers during the transition period does not depend on the breakthroughs of a single policy or the introduction of a certain management tool, but rather on the construction of a high-performance governance system that is multi-level, differentiated, and synergistic. The construction of this system requires systematic optimization and reshaping at three levels: macro-policy, meso-organization and micro-support.

1. Macro policy design

Establish a hierarchical quality development framework: Policies should set a "bottom line" of inclusive safety and quality that all gardens must meet, but on this basis, different development tracks and support programs should be designed according to the gardens' regional location (e.g., urban/rural), the nature of the gardens (e.g., public/private), and the stage of their development. For example, support for small rural gardens should focus on improving hardware, stabilizing teachers, and providing basic on-the-job training, while large urban quality gardens should be encouraged to engage in cutting-edge explorations of curricular innovation, pedagogical research, and international exchange.

Implement a precise financial investment mechanism: Financial investment should not be linked only to the number of children, but should be a strategic tool to regulate regional balance and support specific development goals. For example, special funds should be set up to support the effective governance models identified in this study, such as encouraging and subsidizing small schools to form "cross-school development alliances" to share resources, or providing "subsidies in lieu of awards" to schools that have invested significantly in the professional development of their teachers with outstanding results. "Incentives are also provided to schools that have made significant investments in teacher professional development and have achieved outstanding results.

2. Meso-organizational development

The core of this transformation lies in fostering excellent leadership of the director and building a vibrant professional learning community. The role of the garden director as the designer of the platform and the shaper of the culture is crucial. Policies should not only focus on the administrative appointment of the director, but should also invest heavily in the development of his or her "instructional leadership". As Zinsser and Lutton's (2020) study highlights, leadership behaviors that support teachers' emotional well-being and create a positive work climate are key to reducing teacher burnout and increasing team cohesion and professional engagement. A leader who senses and responds to the needs of teachers can truly make the garden a safe and supportive home.

At the same time, it is not enough to rely on the director alone to build a Professional Learning Community (PLC) where teachers support each other and grow together. However, effective PLCs do not come naturally, and Vang's (2021) research suggests that successful PLCs require explicit structural supports, including: a policy-guaranteed, regular time for brainstorming; a scientifically based process of inquiry that focuses on young children's learning and development; and a culture of decision-making that is based on data rather than subjective impressions. Thus, the policy pathway at the meso level should be:

3. Micro-teacher support

The ultimate goal of all governance is to promote the professional growth of each individual teacher. Therefore, support for teachers must go down to the micro level, moving away from management that emphasizes "status labels" such as academic qualifications and titles to one that focuses on the core competencies that teachers need in real teaching situations. This means that support must be evidence-based, personalized and practice-oriented.

Sporadic, short-term, out-of-practice training must be replaced with evidence-based, ongoing in-service support, and Artman-Meeker and Hemmeter (2023) provide us with an excellent example of this in their study of the large-scale rollout of Practice-Based Coaching (PBC). In their study on the large-scale dissemination of Practice-Based Coaching (PBC), a cyclical process that involves "collaborative planning, focused observation, reflection, and feedback," they provide an excellent policy model that has been shown in numerous empirical studies to be one of the most effective ways to change teachers' instructional behaviors. Policies should invest heavily in the infrastructure of this model, including the development of a cadre of professional, frontline ECE coaches.

Teacher growth requires data-driven self-diagnosis and reflection. Teachers need tools to "see" their practice and its effects, and Horm and File's (2022) research emphasizes the use of Continuous Quality Improvement (CQI) in preschools, which centers on empowering teachers and administrators to learn to use classroom observation assessment tools (CQI) to assess the effectiveness of their practice. At its core, CQI is about empowering teachers and administrators to use classroom observation and assessment tools (e.g., CLASS), ECD assessment data, etc., to analyze problems, set goals, and test for improvement. Therefore, the policy path at the micro level should be to vigorously promote the on-the-job coaching system: to make the establishment and operation of an on-the-job coaching system a core indicator of the level of support for the professional development of teachers in a region or a school, and to provide corresponding financial and human resources support.

Conclusion

Using "systemic governance" as a theoretical lens, this study examines and analyzes the professional growth of early childhood teachers in the context of China's transition period from a multidimensional perspective. The core conclusion of the study is that, in order to achieve high-quality development in preschool education, we must move beyond the traditional paradigm of viewing teacher management as a series of isolated and fragmented tasks to a more holistic, dynamic, and contextualized systemic governance mindset. Teachers' professional growth is not a linear process determined by a single factor, but is the result of the interaction and synergy of four key levers of governance: teacher qualifications, professional training, program size, and director leadership, all of which are part of a complex ecosystem.

The analysis in this paper reveals that the role of these levers is not universal, but rather characterized by significant differentiation. Teacher qualification is the "foundation" of development, determining the starting point and potential for growth; professional training is the "engine", providing sustained impetus and new directions for growth; and the size of the garden is the "soil", with its resources, structure, and capacity. Professional training is the "engine" that provides continuous motivation and new directions for growth; the size of the school is the "soil", its resources, structure and cultural environment constitute the ecology of growth; and the leadership of the director is the "catalyst", whose style and wisdom determines the operational efficiency and final output of the whole system. The essence of a high-performance governance system does not lie in maximizing the role of a particular lever, but

in understanding the interactions among them and making the optimal "combination" according to the specific developmental goals and real-life situations. Therefore, this study is of dual significance to policymakers and front-line practitioners.

References

- Admiraal, W., Kruit, P., & Lockhorst, D. (2022). Teacher collaboration in professional learning communities. **Professional Development in Education**, 48(4), 593-607.
- Ansari, A. (2021). Teacher qualifications and children's development: A focus on the bachelor's degree. In **A. J. Mashburn, J. T. Downer, & S. L. Odom (Eds.), Contexts for young children's development: A critical review of the research on classroom quality, family, and community** (pp. 45-68). Cambridge University Press.
- Artman-Meeker, K., & Hemmeter, M. L. (2023). A systematic review of coaching research in early childhood: A cross-disciplinary analysis of the state of the evidence. **Review of Educational Research**, 93(1), 127-167.
- Bassok, D., & Galdo, E. (2021). The challenges of measuring and promoting quality in early childhood settings: Lessons from Virginia's quality rating and improvement system. **AERA Open**, 7, 233285842110298.
- Clements, D. H., & Sarama, J. (2022). **Sustained, scaled-up, and effective professional development in early mathematics**. In **O. N. Saracho (Ed.), Handbook of research on teacher education in early childhood (2nd ed., pp. 367-389)**. Routledge.
- Day, C. (1999). **Developing Teachers: The Challenges of Lifelong Learning**. Falmer Press.
- Douglass, A. L., & an, Y. (2022). Instructional leadership and teaching quality in early childhood education: A systematic review. **Educational Management Administration & Leadership**, 50(5), 757-776.
- Elliot, E. V., & Kagan, S. L. (2020). Quality in early childhood education and care: A persistent, multifaceted, and nuanced endeavor. In **D. Couchenour & J. K. Chrisman (Eds.), The SAGE encyclopedia of contemporary early childhood education (pp. 1152-1156)**. SAGE Publications.
- Fullan, M. (2016). **The New Meaning of Educational Change (5th ed.)**. Teachers College Press.
- Gomby, D., & Shonkoff, J. P. (2021). To create a better future for children and families, we must build a more effective R&D system. **The ANNALS of the American Academy of Political and Social Science**, 695(1), 274-289.
- Horm, D. M., & File, N. K. (2022). Continuous quality improvement in early care and education: A focus on data for decision making. In **O. N. Saracho (Ed.), Handbook of research on teacher education in early childhood (2nd ed., pp. 581-599)**. Routledge.
- Jeon, L., & Buettner, C. K. (2020). Early childhood teachers' psychological well-being: Exploring the roles of workplace climate and teacher-child interaction quality. **Early Education and Development**, 31(8), 1184-1200.
- Li, J., & Hestenes, L. L. (2021). An ecological perspective on professional development for early childhood teachers in rural China. **Teaching and Teacher Education**, 107, 103493.

- Morris, P., Mattera, S. K., Castells, N., Bangser, M., Bierman, K., & Raver, C. (2021). Impact findings from the Head Start CARES demonstration: national evaluation of three approaches to improving preschoolers' social and emotional competence. **OPRE Report** 2013-44.
- Rhodes, R. A. W. (1996). The New Governance: Governing without Government. **Political Studies**, *44*(4), 652-667.
- Rudasill, K. M., Reichenberg, R. E., & Eum, J. (2020). Promoting teacher-child relationships through professional development: a randomized controlled trial. **Journal of School Psychology**, *81*, 43 -56.
- Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. **Harvard Educational Review**, *57*(1), 1-22.
- Vang, C. (2021). The role of professional learning communities in enhancing teacher collaboration and student achievement in early childhood education. **Early Childhood Education Journal**, *49*(5), 899-910.
- Zinsser, K. M., & Lutton, A. (2020). Early childhood directors as leaders for teacher well-being. In **S. L. Recchia & M. B. T. Site (Eds.), Leadership in early childhood education: Embracing the complex role (pp. 92-106)**. Teachers College Press.

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