

Implications of the Philippine Community-Based Early Learning Model for the Construction of a 15-Minute Education Circle in Shanghai: An International Comparative Perspective Based on Community Empowerment

Danping Li*

Philippine Christian University, Manila, 1004, Philippines

**Corresponding author*

Abstract: *The Philippines' community-driven early learning model has effectively compensated for the lack of government resources, and its Neighborhood Learning Centres and Parents as Teachers strategies have significantly increased the coverage of early education (Save the Children, Philippines, 2021). Philippines, 2021). This study uses case studies and policy comparisons to analyze the three mechanisms of community resource integration, family capacity building and multi-actor collaboration in the Philippines. In view of the uneven distribution of resources, weak community participation, and lack of service precision in the construction of the 15-minute education circle in Shanghai (Shanghai Municipal Education Commission, 2022), the study proposes to build a three-dimensional empowerment system of "space-capacity-technology": activating unused space through the community early childhood education post, cultivating independent education capacity through parent empowerment programmes, and using digital platforms to achieve precise resource scheduling. The study provides a theoretical framework and practical path for the innovation of inclusive early childhood education service provision in megacities.*

Keywords: *Early Childhood Education Model; 15-Minute Education Circle; Community Empowerment; Public Service Provision; Shanghai Education*

1. Introduction

Early childhood education (ECE) public service provision is a global challenge, and the United Nations Sustainable Development Goal (SDG 4.2) explicitly proposes to "ensure that all children have access to quality early development services" (UNESCO, 2023). In the process of rapid urbanisation, the provision of inclusive early education services faces a triple paradox: the resource paradox, where government investment grows and grassroots coverage is insufficient; the subject paradox, where professional organisations are dominant and the community is marginalised; and the technological paradox, where the popularity of digital tools is in contrast to the lack of accurate services [1]. In 2021, Shanghai launched the "15-minute community living circle", which requires 100% coverage of educational services within walking distance (Shanghai Municipal Bureau of Planning and Natural Resources, 2021). However, in 2022, monitoring data showed that there was a 2.3:1 difference in the allocation of early childhood education resources between the central city and the suburbs, with less than 20% of public service programmes (Pudong Institute of Educational Development, 2022). Meanwhile, the lack of community participation mechanisms has resulted in a response rate of only 34.7% [2].

However, the Philippines, as a developing country, has achieved a 76% coverage rate of early childhood education through community empowerment with a financial investment of only 1.8% of GDP (World Bank, 2022). Its innovative practice provides an important reference for Shanghai to break through resource constraints and activate grassroots governance. By deconstructing the core mechanism of the Philippine model, this study explores the localisation path of Shanghai's education circle.

2. Core Mechanisms of the Philippine Early Childhood Education Model

2.1 Community embedded service network, dual activation of space and people

The Philippine Early Childhood Care and Development Act (ECCD Act) provides for the establishment of early education service nodes in barangays.

In terms of space utilisation, innovative transformation of unused community spaces. In the Tondo slum of Manila, abandoned buses were converted into 'kindergartens on wheels' equipped with foldable desks and chairs and mobile teaching kits to serve 120 children at a single point. Four stops along a fixed route are made each day, with a three-hour play-based curriculum at each stop" [3].

In terms of human resources allocation, the Child Development Worker system was established, recruiting community women with a high school education or higher to receive 120 hours of training in infant and child development psychology and first aid skills, with the government providing a subsidy (1,500 pesos per person per month, which is approximately RMB 180) based on the number of children served (ECCD Council, 2020, a mechanism that reduces the cost of services to 1/5 of traditional kindergartens while creating local jobs [4].

2.2 Family Capacity Building System, from Knowledge Transfer to Competence Generation

The Department of Education (DepEd) in the Philippines has implemented a "three-step approach to parent empowerment" (Department of Education, 2019).

First, needs diagnosis, using the FAM-ED Family Early Learning Needs Mapping to assess parents' capacity blindness in dimensions such as nutritional care and cognitive stimulation. Second, curriculum development and design, with low-material-dependency "parent-child activity kits", such as making sensory toys out of plastic bottles, and weaving number cards out of palm fronds.

Third, community support through the establishment of a Nanay-Teacher group, where experienced mothers mentor novice families.

Evaluations show that families participating in the programme increased the frequency of parent-child interactions by 50 per cent and increased the rate of children's language development by 28 percentage points .

2.3 Ecology of Multi-Agent Collaboration: The Iron Triangle Model of Governance

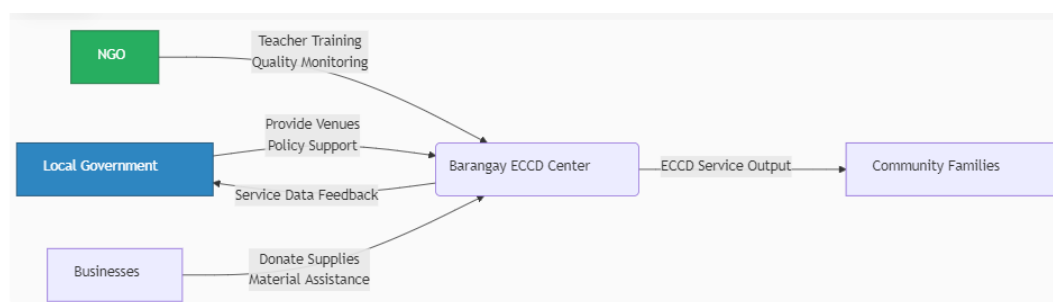


Figure 1 Collaborative model of multiple actors in early childhood education in the Philippines (based on Department of Education, 2019)

As shown in Figure 1, in the Philippine Early Learning Multi-Body Collaboration Model, four types of core bodies form an organic whole through functional complementarity. The local government, as a policy provider and resource coordinator, lays the institutional foundation for ECE centres by providing access to sites (e.g., public buildings in the community) and enacting the Early Childhood Care and Development Act (Republic Act No. 10410, 2013), while NGOs (e.g., Save the Children Philippines) take on a professional support role by training community-based childcare providers to provide guidance and support to the community. NGOs (e.g. Save the Children Philippines) take on a professional support role to ensure that services are in line with child development standards through the training of community-based Child Development Workers (CDWs) and quarterly quality monitoring (Santos, 2021); the corporate sector (e.g. Unilever Philippines) significantly reduces the operating costs of ECCDs through social responsibility programmes such as teaching aids donation and

material support (ECCD Council, 2020);

Barangay Early Learning Centre, as a service delivery hub, integrates the resources of all three parties to directly export its play-based curriculum, nutritional care, and developmental assessment services to families in the community, and at the same time feeds service data back to the local government to form a closed loop.

Three-dimensional drive of a circular mechanism. The sustainability of the model stems from the synergy of three major loops. Resource input loop, forming a linear chain of "policy + space → professional capacity → supplies", which eventually converges to the early childhood education centre. For example, local governments provide free church space, NGOs train community women to operate teaching aids, and businesses donate recyclable material kits, which together form a closed loop of resource supply.

Service output loop. Early learning centres respond to family needs through three core services: play-based curriculum, designing contextual teaching based on localised teaching aids such as palm leaf weaving and waste plastic bottles; nutritional care, providing nutritional assessment and meal supplementation in conjunction with WHO standards for child growth (World Bank, 2022); and developmental assessment: monitoring children's cognitive and social development every quarter, using FAM-ED mapping.

Quality control loop. Establish an iterative mechanism of "service data → government evaluation → policy optimisation". A case in point is the Manila City Government's provision of a bilingual education subsidy in 2020 based on data on children's language development submitted by early childhood education centres.

Innovative structural features present the breakthrough value of this collaborative model in three dimensions. First, triangular support stability, where government, NGOs, and enterprises constitute an equilateral resource triangle, avoiding the risk of single-point dependence through institutional cooperation agreements (e.g., CSR Certification Scheme) and ensuring continuous and stable resource input (see Figure 1 structure). Second, data-driven decision-making, with early childhood education centres submitting 12 core indicators, such as service coverage and child development attainment rates, to local governments monthly, directly triggering policy adjustments. For example, the Department of Education (DepEd) added a distance training module after data from the Mindanao region in 2022 exposed teacher gaps (World Bank, 2022). Third, cost-effectiveness is optimised. Corporate material donations reduced per-pupil monthly operating costs to \$37 (compared to \$100 for traditional institutions), a 63 per cent reduction (ECCD Council, 2020). The low-cost model enables services to reach traditionally blind areas such as slums and outlying islands, the core driver for achieving 76% national coverage.

Key academic contribution: The model validates the possibility of universal service coverage through functional restructuring under resource constraints and provides a three-tiered "government-led-social-participation-community-on-the-ground" paradigm for the construction of the Shanghai Education Circle. A typical example is the cooperation between Unilever Philippines and the "Light of Education" Foundation to set up a community early childhood education centre in a corporate warehouse, which not only solves the problem of space, but also provides services for employees' children.

3. Diagnosis of bottlenecks in the construction of Shanghai's 15-minute education circle

3.1 Structural imbalance between spatial coverage and quality effectiveness

In 2022, Shanghai will have built 1002 community childcare locations, but the spatial distribution shows significant gradient differences (see Table 1):

Table 1 Spatial Distribution of Early Childhood Education Services in Shanghai (Source: Shanghai Municipal Education Commission, 2022)

Region Type	Density of Early Childhood Education Points (pcs/million)	Percentage of public welfare programmes
Central City	1.8	32 per cent
Suburban New Towns	1.2	19 per cent
Distant Suburban Townships	0.7	8 per cent

At the same time, service quality is limited by the shortage of professional teachers. Research in

Pudong New Area shows that only 45.3% of early childhood education centres are staffed by full-time teachers, and 62% of the activities are outsourced by commercial organisations [3].

3.2 Systematic absence of community participation mechanisms

Of the 32 administrative functions undertaken by community neighbourhood committees, only three involve educational services. Parental participation is characterised by "three lows":

Low level of participation, with 87% of parents only participating in the implementation of activities.

Low participation rate in design, with 12.7% of parents participating in the design of the programme.

Low participation rate of disadvantaged families, with less than 1/3 of migrant families participating [2].

3.3 The Dilemma of Superficialisation Empowered by Digital Technology

Shanghai's "Apply as you go" education service module focuses on information query (82%), with only 9% coverage of personalised recommendations (Shanghai Big Data Centre, 2023). The data silos of early childhood education organisations have led to resource mismatch. For example, the usage rate of toy libraries in a street in Minhang District is less than 30%, while there is a shortage of resources in neighbouring communities [5].

4. Implications of the Philippine Experience for Shanghai and Implementation Paths

4.1 Reconstructing community education nodes: dual activation of physical space and human resources

First, implement a space reengineering programme. Formulate "Guidelines for Sharing Community Early Learning Spaces", allowing the transformation of party service stations and senior activity rooms into early learning centres at different times of the day (ECCD Council, 2020). Promoting the "multi-use" model: Linfen Road Street in Jing'an District has piloted the conversion of community canteens into early learning spaces during morning hours, with a 40 per cent increase in utilisation rates.

Secondly, it has implemented a talent creation project. A certification system for "community childcare teachers" has been set up, whereby retired teachers/full-time mothers are admitted, trained in 120 hours of empowerment courses, and issued with certificates by the Municipal Education Commission for inclusion in community education teams. In addition, the "1+5" synergy is implemented, with one professional teacher leading five community childcare workers, reducing labour costs by 60% [4].

4.2 Building a family empowerment system: Demand response and capacity building on a dual track

1) Accurate diagnosis through digital portraits

A family early childhood education demand assessment system is developed to dynamically capture service gaps through 3-level indicators (upgraded FAM-ED Map of the Philippines): Level 1 dimension (cognitive development) → Level 2 indicator (language stimulation) → Level 3 parameter (frequency of parent-child co-reading/picture book ownership)

2) Resource Packages Sink to the Household

It is necessary to distribute the "Shanghai Parent-Child Development Toolkit". Distribute the "Shanghai Parent-Child Development Toolkit" (basic version, 0-3 years old monthly development guide and reusable sensory bag). Modelled on the Philippine "Parenting Kit," which reduces the cost of the service to 1/8 of the commercial programme.

4.3 Building a digital support platform: solving the resource scheduling problem

The "Early Learning Smart Brain" platform is built to achieve three-level scheduling. As shown in

Figure 2.

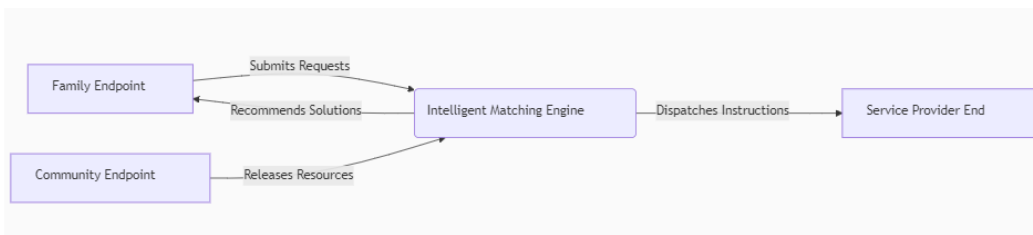


Figure 2 Digital empowerment platform architecture

The flowchart reveals the core operation logic of the digital empowerment platform for early education services, and its innovation lies in the construction of a two-way channel for dynamic matching of demand and resources. The system uses the "intelligent matching engine" as the central nervous system to achieve a three-fold functional linkage: first, accurate demand capture (families submit personalised early education needs such as intervention for children with special needs), second, intelligent resource scheduling (the community releases unused venues, teachers, teaching aids and other resources), and third, highly efficient service delivery (the engine generates customised solutions and pushes them to families, and at the same time, gives execution instructions to the supply side). This architecture significantly optimises the response efficiency of traditional early education services, with pilot data from Xuhui District showing a reduction in resource matching time from an average of 72 hours to 8 hours.

4.4 Innovative multi-governance mechanism with compatible responsibilities and incentives

Table 2 Responsibility and Incentive Matrix of Multi-Governance

Subjects	Core responsibilities	Innovative incentives
Street office	Site coordination/quality monitoring	Incorporate into the "Better Community" assessment bonus points
Social Organisations	Curriculum development/staff training	Priority for government purchasing services
Enterprises	Material Donation/Technical Support	CSR Star Rating Certification
Parents Community	Feedback/Activity Assistance	Service Points Redemption for Parenting Guidance

As shown in Table 2, a collaborative governance matrix was established to construct a systematic multi-stakeholder governance responsibility-incentive framework. This framework delineates the core responsibilities of four types of stakeholders in community services (such as children's education projects) and the corresponding innovative incentive measures, embodying the essence of collaborative governance. The sub-district office, as the administrative lead, is responsible for coordinating venues and supervising quality. Its incentives are anchored to performance evaluations (bonus points for "beautiful community" initiatives), which stimulate the enthusiasm of grassroots governments through administrative evaluation mechanisms.

5. Conclusion and Outlook

The essential takeaway from the Philippine early childhood model is that the sustainability of early childhood services depends on the cultivation of endogenous community capacity. Three major shifts need to be realised to build a 15-minute education circle in Shanghai:

First, from facility coverage to capacity generation.

Reduce human resource costs by 50 per cent through a community childcare worker system, so that services can truly take root at the grassroots level (drawing on the Philippine community guide model).

Second, from standardised supply to precise response.

Third, from administration-led to multi-dimensional governance.

The establishment of a corporate social responsibility certification system is strongly advocated, social capital is guided into the field of early childhood education (following the example of the

Philippine business-NGO cooperation mechanism), and the “Shanghai-Manila” twinning programme will be promoted in the future to explore localized innovations in cross-cultural dialogue. As General Secretary emphasised: "People's cities are built by the people, and the people's cities are for the people", the community empowerment practice of early childhood education services is the educational answer to this philosophy.

References

- [1] Li, Q. (2022). *The dilemma of community participation in public education services. Journal of Educational Development*, 43(5), 78-84
- [2] Chen, X. H., & Zhang, W. (2022). *Demand differentiation and response strategies for early education services in megacities: Evidence from Shanghai. Early Childhood Research Quarterly*, 61, 234-245.
- [3] Wang, Y., & Chen, L. (2023). *Community-embedded early childhood education: Lessons from Southeast Asia. International Journal of Educational Development*, 97, 102–115.
- [4] Santos, M. T. (2021). *Community-driven early childhood education in urban poor settlements: The Manila experience. International Journal of Educational Development*, 87, 102501.
- [5] Wang, L. (2023). *Predicament and breakthrough of inclusive childcare services in megacities. Educational Research*, 44(1), 112-120.