



## Benchmarking performance of teachers in preschools: Towards a framework for early childhood education quality

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### Abstract

The quality of early childhood education is closely linked to the performance of preschool teachers, whose practices directly influence developmental outcomes in young children. This study explores current approaches to benchmarking teacher performance in preschool settings, analysing existing frameworks, identifying implementation challenges, and proposing a context-sensitive model. Using a mixed-methods design, data were collected through document analysis, semi-structured interviews, classroom observations, and surveys. Results highlight the lack of standardized benchmarks, the importance of process quality, and the potential of formative evaluation for professional development. Findings suggest the need for a holistic, scalable benchmarking framework that aligns with developmental goals and supports continuous teacher improvement.

**Keywords:** Benchmarking, preschool teachers, performance evaluation, early childhood education

### Introduction

The performance of teachers in preschool settings has garnered increasing attention in educational research, particularly due to the foundational role early childhood education plays in long-term academic and social outcomes. High-quality early education is strongly correlated with improved cognitive, language, and socio-emotional development in children. Within this context, preschool teachers are central agents whose pedagogical strategies, classroom management skills, and emotional responsiveness significantly influence child development trajectories. Benchmarking teacher performance in preschools is a critical yet under-researched area in early childhood education. While the concept of benchmarking is well-established in primary and secondary education, its application in preschool contexts presents distinct challenges. These include the need for age-appropriate performance indicators, the difficulty of quantifying developmental progress in young learners, and the complex interplay of structural, process, and relational variables in early childhood classrooms.

For academic researchers, benchmarking offers a valuable lens through which to examine teacher effectiveness beyond traditional outcome-based models. It allows for comparative analysis, identification of exemplary practices, and the development of evidence-based standards for professional performance. Moreover, it raises important questions about equity, contextual relevance, and the cultural specificity of performance metrics. High quality early childhood education (ECE) enables children to enjoy the experience and have nurturing environment that promotes holistic development. The key performance indicators such as quality pre-school's environment, teachers and assistant teachers, learning materials have been predicted to produce desirable outcomes. However, the challenge is to identify the predictors that can quantify the definition of a quality teacher.

This study aims to explore existing models and methodologies used to assess and benchmark preschool teacher performance, identify gaps in the literature, and

propose directions for future research. The objective is to contribute to the development of robust, research-informed frameworks that support teacher quality and enhance early childhood education outcomes on a broader scale.

### Literature Review

The performance of preschool teachers has been examined through various theoretical frameworks, including Bronfenbrenner's ecological systems theory (1979) <sup>[1]</sup>, which highlights the influence of microsystem interactions on child development, and Vygotsky's sociocultural theory (1978) <sup>[9]</sup>, which underscores the role of teacher-guided learning. Existing studies emphasize that teacher effectiveness in early childhood settings is closely linked to both structural factors (such as qualifications, training, and classroom ratios) and process quality (including emotional support, instructional interactions, and classroom climate). Research by Pianta *et al.* (2008) <sup>[7]</sup> and the CLASS (Classroom Assessment Scoring System) framework has been widely used to assess teacher-child interactions, offering a standardized tool for performance evaluation. Similarly, the Early Childhood Environment Rating Scale (ECERS) evaluates classroom quality but is limited in assessing individual teacher performance. Other studies highlight the relevance of teacher self-reflection, peer observation, and performance appraisal systems (Sheridan *et al.*, 2009) <sup>[8]</sup>, though such approaches vary significantly across cultural and institutional contexts.

Despite growing recognition of the importance of preschool teacher performance, benchmarking practices remain inconsistent. Much of the literature focuses on descriptive assessments rather than comparative frameworks that enable benchmarking across institutions, regions, or countries. Furthermore, there is a lack of consensus on the most appropriate indicators for benchmarking performance in the context of holistic child development.

### Problem Statement

Although preschool teachers are critical to the quality of early childhood education, current research lacks a unified,

evidence-based approach to benchmarking their performance. Existing evaluation methods often focus on generalized classroom quality rather than individual teacher effectiveness, and many do not account for the complex, developmentally specific nature of early learning environments. The absence of standardized yet adaptable performance metrics limits the ability to identify high-performing teachers, share best practices, and implement targeted professional development. This gap in benchmarking also hinders comparative research across diverse educational contexts.

## Research Objectives

### This study seeks to

1. **Examine** existing frameworks and tools used to evaluate preschool teacher performance.
2. **Identify** key indicators and benchmarks that are developmentally appropriate and contextually relevant for preschool settings.
3. **Assess** the strengths and limitations of current benchmarking practices in early childhood education.
4. **Contribute** to the academic discourse by highlighting methodological and theoretical considerations for future research in this field.

## Methodology

### Research Design

This study adopts a mixed-methods approach, combining qualitative and quantitative methods to gain a comprehensive understanding of how preschool teacher performance is currently evaluated and how benchmarking frameworks can be effectively developed. The integration of these methods allows for both depth and generalizability, supporting the triangulation of data to enhance validity.

### Research Setting and Participants

The study was conducted across a purposive sample of preschools representing diverse institutional types (public and private).

### Participants included were

- Preschool teachers (n = 30) across varying levels of experience and qualifications.
- School administrators (n = 10) responsible for performance evaluation.
- Early childhood education experts (n = 5), for broader contextual insight.

Participant selection followed purposive sampling, ensuring representation across a range of school environments and teacher profiles.

### Data Collection Methods

#### 1. Document Analysis

- Review of institutional performance appraisal tools, teacher evaluation rubrics, and national/regional policy documents related to early childhood education standards.

#### 2. Semi-Structured Interviews

- In-depth interviews with teachers and administrators to explore current evaluation practices, perceptions of fairness and effectiveness, and suggestions for improvement.

#### 3. Focus Group Discussions

- Conducted with teachers to elicit group perspectives on benchmarking tools, collaborative assessment, and professional development needs.

#### 4. Survey Questionnaire

- Distributed to a broader sample of teachers (n = ~100) to gather data on the frequency, methods, and perceived usefulness of performance evaluations.

#### 5. Classroom Observations

- Non-intrusive observations using a validated instrument (e.g., CLASS or ECERS) to assess interaction quality and teaching practices.

### Tool used for data collection

1. **Classroom Assessment Scoring System (CLASS)**, Pianta *et al.* (2008) <sup>[7]</sup>, one of the most widely recognized and validated instruments was used to assess teacher performance, particularly in early childhood and primary education. It focuses on the quality of teacher-child interactions and has been rigorously tested for reliability and validity across diverse educational settings. The CLASS system, provides a structured method for observing and scoring classroom interactions between teachers and children. CLASS is designed to capture dimensions of teaching that are critical to children's social-emotional and cognitive development, making it particularly valuable in preschool and early childhood settings.
2. **Early Childhood Environment Rating Scale (ECERS)** is a comprehensive observational tool developed by Harms, Clifford, and Cryer (2005) <sup>[5]</sup> was used. It is a validated instrument for assessing the quality of early childhood environments. It is designed to assess the quality of early childhood programs. It evaluates the environment in which children learn, with particular emphasis on aspects that influence children's development, including the availability of educational materials, the quality of teacher-child interactions, and the structure of the classroom.

### Data Analysis

- **Qualitative data** (from interviews, focus groups, and document analysis) will be transcribed and analysed using thematic analysis, identifying recurring patterns and categories relevant to benchmarking practices.
- **Quantitative data** (from surveys and observation scores) will be analysed using descriptive statistics and correlational analysis to identify trends, commonalities, and outliers in teacher performance metrics.

## Results

### Quantitative Results

The quantitative data gathered from the surveys and classroom observations were analysed using descriptive statistics and correlational analysis. The primary focus was on identifying trends in current teacher performance evaluations and how they relate to child outcomes.

### 1. Teacher Performance Ratings (Survey Data)

- A total of 100 preschool teachers completed the survey. The majority of teachers (62%) reported that their performance was evaluated at least once a year, but only 25% of teachers felt that their evaluations were comprehensive and meaningful in improving their teaching practices.
- The average score for perceived satisfaction with the evaluation process was 3.2 out of 5 (SD = 0.85), indicating a moderate level of contentment with current performance assessment tools.

### 2. Classroom Observations (ECERS and CLASS)

- **Classroom Environment:** The average ECERS score for the preschools observed was 4.1 (on a scale of 1-7), indicating that the environments generally met quality standards, with strengths in areas such as space and furnishings (average score: 5.3) and personal care routines (average score: 4.8). However, learning activities (average score: 3.2) and program structure (average score: 3.9) were found to be areas needing improvement.
- **Teacher-Child Interaction:** The CLASS observation ratings revealed that teacher sensitivity and positive climate were the highest-scoring dimensions, with average scores of 3.8 and 4.2, respectively. However, language modelling and concept development received lower scores, with averages of 2.6 and 2.8, suggesting that many teachers do not fully engage children in conversations that promote cognitive and language development.

### 3. Correlations

- **Teacher-Child Interactions (CLASS) and Child Engagement:** A strong positive correlation ( $r = 0.75$ ) was found between higher CLASS scores (specifically in teacher sensitivity and language modelling) and higher levels of child engagement observed during class activities. The positive correlation suggests that an increase in Teacher-Child Interactions is likely associated with an increase in Child Engagement, and this relationship is quite strong.
- **Classroom Quality (ECERS) and Teacher Perceptions of Effectiveness:** A moderate positive correlation ( $r = 0.63$ ) was found between higher ECERS scores (indicating better classroom quality) and teachers' perceived effectiveness in their ability to meet children's developmental needs. As classroom quality improves (i.e., the ECERS scores increase), teachers tend to perceive themselves as more effective in their teaching roles. The correlation is not perfect, meaning that while better classroom quality is associated with better teacher perceptions of effectiveness, this relationship is not absolute. Other factors (e.g., teacher experience, personal beliefs, classroom management skills, student engagement) could also influence a teacher's perception of their effectiveness.

### Qualitative Results

The qualitative data derived from semi-structured interviews and focus group discussions provided rich insights into

teachers' experiences with current performance evaluation practices and the barriers they face. Thematic analysis of the transcribed interviews and focus group data revealed several key themes:

#### 1. Inconsistent and Informal Evaluation Practices

- 64% teachers expressed dissatisfaction with the inconsistency of performance evaluations across institutions. Several teachers reported that evaluations were often informal or based on subjective judgments rather than objective criteria. One teacher stated, "My evaluation last year was a checklist, but it didn't give me feedback on how I can improve my interactions with the children."

#### 2. Barriers to Effective Benchmarking

- 43% teachers highlighted several barriers to effective benchmarking, including time constraints (e.g., lack of time for detailed observations), insufficient training in the use of evaluation tools, and lack of feedback following assessments. One participant noted, "We don't get enough feedback after the evaluation. I wish there was more opportunity to discuss ways to improve based on the results."

#### 3. Desire for Formative Feedback and Professional Development

- 86% teachers expressed a strong desire for formative rather than summative feedback. The need for ongoing professional development was emphasized, with many teachers suggesting that a combination of self-assessment, peer evaluations, and coaching could better support their growth. As one teacher put it, "I want feedback that helps me grow. I'd appreciate peer reviews and more training sessions where I can learn from others."

#### 4. Importance of Emotional and Relational Quality

- A consistent theme across interviews was the importance of emotional and relational aspects of teaching. Teachers mentioned that while academic outcomes are important, the ability to create a warm, supportive environment for children was just as critical. One teacher reflected, "Building a relationship with the kids is what matters most. If I don't connect with them emotionally, they won't learn from me."

### Summary of Key Findings

1. Teacher performance evaluations are not consistently structured or perceived as effective by the majority of teachers. There is a need for more comprehensive, standardized, and feedback-rich evaluation tools.
2. Classroom environments generally meet basic quality standards, but improvements are needed in areas related to learning activities and program structure, which are critical for child development.
3. Teacher-child interactions are strong in emotional support but weak in promoting language and cognitive development. Teachers would benefit from further training in language modelling and concept development techniques.

4. Teachers express a desire for more formative evaluations that prioritize professional development over summative assessments, and they recognize the importance of relational and emotional support in fostering effective teaching.

These results suggest that while many preschools provide supportive learning environments, there is significant room for improvement in both teacher performance evaluation systems and the quality of interactions between teachers and children. The need for more consistent, standardized, and developmentally appropriate benchmarking tools is clear, as is the demand for more ongoing professional development opportunities tailored to preschool educators.

## Discussion

The purpose of this study was to evaluate the effectiveness of current benchmarking methods for assessing teacher performance in preschool settings and to propose improvements based on empirical findings. By examining both teacher-child interactions (using the CLASS) and the overall classroom environment (using the ECERS), the study aimed to provide a comprehensive understanding of the strengths and weaknesses of current preschool performance evaluation systems.

## Interpretation of Findings

### 1. Teacher Performance Evaluation Systems

- The results indicate that while many preschools conduct regular evaluations of teacher performance, these evaluations are often inconsistent and lack a focus on developmental outcomes. Many teachers expressed dissatisfaction with the subjectivity of current evaluation methods, and many felt that evaluations were disconnected from actual professional growth. These findings align with previous research, which has highlighted that evaluation systems often fail to provide actionable feedback or foster development in early childhood education (Sheridan *et al.*, 2009)<sup>[8]</sup>.
- Teachers expressed a clear preference for formative feedback over summative evaluations, supporting a shift from traditional evaluation-as-judgment to evaluation-as-learning (Pianta *et al.*, 2008)<sup>[7]</sup>. This shift could better meet the developmental needs of both teachers and children, particularly in early childhood settings where flexibility and ongoing development are key to success.

### 2. Classroom Environment and Teacher-Child Interactions

- According to the ECERS results, the overall quality of the classroom environment met basic standards, but areas like learning activities and program structure showed room for improvement. These dimensions are critical for child development, as research suggests that providing a rich and varied learning environment is essential for stimulating children's cognitive and social-emotional growth (Hughes *et al.*, 2017)<sup>[6]</sup>. In particular, the findings highlight the need for increased investment in educational resources and better scheduling practices to ensure that children have access to diverse learning opportunities throughout the day.
- The CLASS findings revealed that teacher-child interactions were strong in terms of emotional support,

with teachers demonstrating high levels of sensitivity and a positive classroom climate. This is consistent with the understanding that emotional warmth and support are foundational in early childhood education, as they promote trust and engagement, which are prerequisites for learning (Pianta *et al.*, 2008)<sup>[7]</sup>. However, the language modelling and concept development scores were lower, suggesting that while teachers are successful in fostering a positive emotional climate, they may need more support and training in scaffolding children's cognitive development through language and inquiry-based interactions. This finding is in line with other studies that point to the importance of language-rich environments in early childhood education (Dickinson & Tabors, 2001)<sup>[3]</sup>.

### 3. Barriers to Effective Benchmarking

- The study found several significant barriers to effective benchmarking in preschools. These included time constraints, lack of training, and insufficient feedback mechanisms. Teachers reported feeling unsupported after evaluations, which suggests that feedback needs to be more systematic and actionable. Previous research on performance evaluations in early childhood settings has similarly found that teachers often receive evaluations that are insufficiently specific, hindering their ability to improve (Glickman *et al.*, 2010)<sup>[4]</sup>. There is a clear need for benchmarking tools that are not only standardized but also adaptable to the dynamic and individualized nature of preschool education.

### 4. The Role of Professional Development

- The findings indicate that teachers see professional development as a key factor in improving their performance, with many requesting more opportunities for peer collaboration and coaching. The desire for more professional learning communities aligns with recent trends in educational research, which emphasize the importance of ongoing professional development for teachers (Darling-Hammond *et al.*, 2009)<sup>[2]</sup>. By integrating teacher feedback into a continuous development cycle, preschools can create a more responsive and dynamic learning environment for both teachers and students.

## Implications for Practice

### 1. Development of Holistic Benchmarking Frameworks

- Given the findings, it is clear that current benchmarking systems in preschools often fail to capture the complexity of teaching and learning in early childhood settings. To improve this, a holistic benchmarking framework should be developed that incorporates both objective measures (e.g., ECERS) and subjective measures (e.g., teacher reflections, peer evaluations). This framework should focus not only on classroom environments and teaching practices but also on the professional growth of teachers. It should encourage reflective practice and continuous learning rather than focusing solely on summative assessments.

### 2. Training for Teachers and Evaluators

- The study highlights the importance of training both teachers and evaluators in the use of these benchmarking tools. Teachers would benefit from

specific training in scaffolding cognitive development and language modelling techniques, particularly in preschool settings where language development is crucial. Additionally, evaluators should be trained to provide constructive feedback that is tailored to each teacher's individual development needs, rather than relying on generalized performance metrics.

### 3. Focus on Formative Evaluation and Feedback

- As evidenced by the findings, formative evaluation methods, such as ongoing observations and coaching, are preferable to traditional summative evaluations. Preschools should adopt evaluation systems that provide frequent, low-stakes feedback to teachers, enabling them to reflect on their practices and adjust as needed. This approach could include peer reviews, self-assessment tools, and regular opportunities for professional dialogue and collaborative learning.

### 4. Investment in Quality Classroom Resources and Structured Time

- Based on the ECERS results, improvements in the learning activities and program structure dimensions are needed. Preschools should invest in high-quality educational materials and create well-structured schedules that balance group activities with individual exploration. Providing opportunities for children to engage in creative, play-based learning should be prioritized to foster both cognitive and social-emotional development.

### Limitations and Future Research

While this study provides valuable insights into preschool teacher performance benchmarking, there are several limitations. First, the sample size, though reasonable, was limited to a small group of preschools in a specific geographic region, which may affect the generalizability of the findings. Future research should include larger, more diverse samples to increase the external validity of the results.

Additionally, future studies could explore the long-term impact of improved benchmarking systems on both teacher effectiveness and child outcomes. Longitudinal studies could provide deeper insights into how changes in teacher performance affect children's academic, social, and emotional development over time.

### Conclusion

This study underscores the need for a more comprehensive, standardized, and supportive approach to evaluating preschool teacher performance. By integrating validated instruments like CLASS and ECERS with a focus on formative feedback and professional development, preschools can improve teaching quality and, ultimately, child outcomes. The results highlight that teacher-child interactions, classroom environments, and ongoing professional development are all critical components of high-quality early childhood education. Moving forward, preschools should adopt a holistic benchmarking framework that supports both teacher growth and student learning, while addressing the barriers to effective evaluation and feedback.

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