https://doi.org/10.37420/j.cer.2024.122

The Present State of Teacher-Child Interaction in Picture Book Teaching from the CLASS Perspective: A Case Study of Z Kindergarten

Fan Huizhen*

School of Culture and Education, Tianfu College of Southwestern University of Finance and Economics

***Corresponding author, E-mail: fanhuizhen@tfswufe.edu.cn**

Abstract:

The high-quality educational development of preschool education is critical to the development of a modern educational system.The quality of teacher-child interaction, a fundamental component of process quality in preschool education, plays a crucial role in improving overall preschool education.This study employed a non-participatory observation approach and the CLASS assessment tool to examine picture book teaching in two senior classes at Z Kindergarten.The goal is to examine the existing condition, characteristics, and influencing variables in teacher-child interaction.The findings indicate that the overall quality of teacher-child interaction in the senior group's picture book teaching activities at Z Kindergarten ranges from medium to high. However, the scores in the area of Classroom Organization are quite low.There are slight variations in the quality of teacher-child interactions between the two classrooms; however, these differences are not statistically significant.The investigation found that the quality of teacher-child interaction is influenced by the teacher's picture book teaching competence, teaching philosophy, and the children's physical and mental development levels, as well as temperament.Based on the findings, this study offers appropriate suggestions for both teachers and kindergartens. For example, teachers should always enhance their picture book teaching skills and revise their teaching ideas. Meanwhile, kindergartens should provide teachers with opportunities for professional development and learning platforms to help them master techniques and strategies for enhancing the quality of teacher-child interaction.

Keywords:

CLASS;Teacher-child interaction;Picture book teaching;Quality of preschool education

1.Introduction

The report from the Communist Party's 20th National Congress emphasizes that supporting high-quality development is the key goal in establishing a modern socialist country.[1]As the first stage of education, The high-quality development of preschool education is essential to building a modern educational system.As a result, in the current reform and development process in preschool education, the theme of 'quality of preschool education' has emerged as a prominent emphasis[2], spanning three major dimensions: structural qual-

© 2024 by the author(s); licensee Mason Publish Group, this work for open access publication is under the Creative Commons Attribution International License (CC BY 4.0). (http://creativecommons.org/licenses/by/4.0/)

ity, process quality, and outcome quality.Process quality, for example, relates to components directly relevant to children's lives and learning experiences[3], with teacher-child interaction quality serving as its foundation.[4]As a result, effective teacher-child interaction is essential for raising the quality of preschool education.

Teacher-child interaction refers to the manner, behaviors, and characteristics of interactions between teachers and children.[5] It is the major means of communication between teachers and students. According to research, a strong teacher-child connection is essential for children's academic development.[6-8]According to some research, teacher-child interaction occurs most frequently during group teaching activities[9], and picture book teaching, a collective educational activity focusing on picture book materials, is an important component of kindergarten teaching.In this process, as the primary players in the activity, the contact between teachers and students is critical to overall teaching efficacy.[10, 11]

Based on the foregoing, the purpose of this study is to investigate the current state of teacher-child interaction in picture book teaching in the senior class at Z Kindergarten, summarize its characteristics and influencing factors, and provide appropriate educational practices. The goal is to increase the teacher-child interaction in picture book teaching, as well as the kindergarten's general educational quality.

2.Design of Research

2.1 Research Subjects

The convenience sample method is used in this study, with data collected from two classes in the senior group at Z Kindergarten. Table 1 provides precise details for the two classes.

Table 1: Specific Details of the Two Senior Classes at Z Kindergarten

Class	Class One	Class Two
Number of Teachers	3	3
Number of Children	31	33

2.2 Research Instruments

This study employs the Classroom Assessment Scoring System (CLASS), created by a research team led by American researcher Pianta and others. The scale has three primary domains and ten dimensions (see Figure 1). [12]It uses a 7-point scoring system, with scores of 1-2 designating low levels, 3-5 representing medium levels, and 6-7 reflecting high levels. The domain score is the average of the scores for each dimension in that domain.It is vital to remember that in the Emotional Climate domain, the 'Negative Climate' dimension is scored in reverse. During data processing, the scores for this dimension must be reverse-coded.[13]

Three Main Domains	Ten Dimensions
Emotional Climate	Positive Climate, Negative Climate, Teacher Sensitivity,Attention to Children's Perspectives
Classroom Organization	Behavior Management, Activity Organization Efficiency, Instructional Strategies
Instructional Support	Cognitive Development, Feedback Quality, Language Modeling

Figure 1: The Three Domains and Ten Dimensions of CLASS

© 2024 by the author(s); licensee Mason Publish Group, this work for open access publication is under the Creative Commons Attribution International License (CC BY 4.0). (http://creativecommons.org/licenses/by/4.0/)

3.Research Results and Analysis

3.1 An examination of the overall situation of Teacher-Child Interaction in Picture Book Teaching

(1) An examination of the Overall Situation of Teacher-Child Interaction in the Three Domains

Figure 2 displays the study's findings on the general condition of teacher-child interaction during picture book teaching in Z Kindergarten's two senior classes.

Three Main Domains	Mean	Standard Deviation	Range
Emotional Climate	5.91	0.84	4.00-7.00
Classroom Organization	5.63	0.95	4.00-7.00
Instructional Support	6.00	0.85	4.00-7.00

Figure 2: The Overall Situation of Teacher-Child Interaction in the Three Domains

Figure 2 demonstrates that the average scores for teacher-child interaction in picture book teaching in the three domains are 5.91, 5.63, and 6.00, which are all within the range [5.00-6.00]. This means that the overall quality of teacher-child engagement in picture book teaching at Z Kindergarten is medium to high.Moreover, among the three domains, ‘Instructional Support’ achieves the highest teacher-child interaction score of 6.00. This suggests that picture book teachers can utilize successful teaching tactics to help children develop their cognitive and language skills.Second, the range of scores for the three domains is [4.00-7.00], and the standard deviations for the three domains are all below 1.0, showing that the scores for each dimension in the three domains are low in variability and fluctuate little. The standard deviation for the 'Classroom Organization' domain is 0.95, the highest of the three domains, indicating that there are some concerns with teacher-child interaction in this dimension that vary by teacher and kid.

(2) An examination of the Overall Situation of Teacher-Child Interaction in the Ten Dimensions

Figure 3 depicts the results of overall teacher-child interaction in the 10 aspects of picture book teaching in Z Kindergarten's two senior classes.

© 2024 by the author(s); licensee Mason Publish Group, this work for open access publication is under the Creative Commons Attribution International License (CC BY 4.0). (http://creativecommons.org/licenses/by/4.0/)

Three Main Domains	Ten Dimensions	Mean	Standard Deviation	Range
Emotional Climate	Positive Climate	6.25	0.66	5.00-7.00
	Negative Climate	5.75	0.66	5.00-7.00
	Teacher Sensitivity	5.75	1.09	4.00-7.00
	Attention to Children's Perspectives	5.88	0.78	5.00-7.00
Classroom Organization	Behavior Management	5.50	0.87	4.00-7.00
	Activity Organization Effciency	5.88	0.93	4.00-7.00
	Instructional Strategies	5.50	1.00	4.00-7.00
Instructional Support	Cognitive Development,	5.50	0.87	4.00-7.00
	Feedback Quality	6.20	0.75	5.00-7.00
	Language Modeling	6.20	0.75	5.00-7.00

Figure 3: An examination of the Overall Situation of Teacher-Child Interaction in the Ten Dimensions

Overall, the average scores for teacher-child interaction in the 10 areas of picture book education in Z Kindergarten's senior classes range from 5.5 to 6.25, indicating a medium-high ability.The scores for 'Positive Climate,' 'Feedback Quality,' and 'Language Modeling' are 6.25, 6.20, and 6.20, respectively, indicating a high level. This suggests that during picture book teaching, teachers can create a warm and supportive learning environment for children. They also provide scaffolding, consciously encourage participation, offer feedback, and motivate children to express themselves actively. On the other hand, 'Behavior Management,' 'Instructional Strategies,' and 'Cognitive Development' all have ratings of 5.50, the lowest of the 10 dimensions. This shows that there is tremendous opportunity for growth in picture book teachers' abilities to accurately explain rules and information, provide effective instructional strategies, and use teaching approaches flexibly to promote children's deeper comprehension of knowledge.Furthermore, the scores for the ten dimensions vary from 4.00 to 7.00, with standard deviations of 0.66 to 1.09.The 'Teacher Sensitivity' dimension has the biggest standard deviation (1.09). This suggests that not all teachers are always able to respond to and care about their students' cognitive and emotional requirements.

The scores for the four dimensions in the Emotional Climate domain vary from 5.75 to 6.25, reflecting a medium-high level. This shows that when teaching picture books, teachers can create a pleasant and calm learning atmosphere for children while also assisting them in developing positive interacting relationships with themselves, the teacher, and peers. The ratings for the three dimensions in the Classroom Organization domain vary from 5.50 to 5.88, suggesting a medium level. This shows that in picture book teaching, teachers can make full use of activity time to keep youngsters interested in continuous engagement in educational activities.The scores for the three dimensions in the Instructional Support domain vary from 5.50 to 6.20, reflecting a medium-high level. This demonstrates that teachers can utilize positive and successful teaching tactics to broaden and deepen children's knowledge and skills, thereby encouraging the development of ad-

© 2024 by the author(s); licensee Mason Publish Group, this work for open access publication is under the Creative Commons Attribution International License (CC BY 4.0). (http://creativecommons.org/licenses/by/4.0/)

vanced language abilities.

3.2 Comparison of the Differences in Teacher-Child Interaction in Picture Book Teaching Between Different Classes

Figure 4 depicts the findings of a comparison of disparities in teacher-child interaction in picture book teaching between Z Kindergarten's two senior classes.

Three Main Domains	Class	Mean	Standard Deviation	Range	F	*p*
Emotional Climate	Class One	6.19	0.73	5.00-7.00		
	Class Two	5.63	0.86	4.00-7.00	0.905	0.349
Classroom Organization	Class One	6.08	0.86	5.00-7.00		
	Class Two	5.19	0.80	4.00-6.00	0.168	0.686
Instructional Support	Class One	6.43	0.62	5.00-7.00		
	Class Two	5.57	0.82	4.00-7.00	1.182	0.287

Figure 4: Comparison of the Differences in Teacher-Child Interaction Between Different Classes in the Three Domains

Figure 4 shows that the teacher-child interaction scores for picture book teaching in Class One range from [6.00-7.00], indicating a high level, whereas the scores in Class Two range from [5.00-6.00], reflecting a medium-high level. This shows that, in general, the level of teacher-child engagement in picture book teaching is slightly higher in Class One than Class Two. However, there is no statistically significant difference in outcomes between the two classes across all three domains.

4.Factors Affecting the Quality of Teacher-Child Interaction in Picture Book Teaching

This study examines and discusses the research findings, and after a thorough examination of the literature, it analyzes the major factors that influence the quality of teacher-child interaction in picture book teaching.

4.1 Teacher's Perspective

(1)Teacher's Picture Book Teaching Ability

The teacher's competence to teach picture books is demonstrated in areas such as lesson plan design, classroom questioning and answering, and linguistic expression.[14] These variables influence the efficacy of picture book teaching and the quality of teacher-child interaction.In group teaching activities, teachers often cannot attend to every child, causing some children to lose focus. However, teachers with good picture book teaching talents may grab children's attention by expressive storytelling, effective questioning and replying, and appropriate, advanced language expression, thus improving the quality of teacher-child engagement.[15]

(2)Teacher's Educational Philosophy

© 2024 by the author(s); licensee Mason Publish Group, this work for open access publication is under the Creative Commons Attribution International License (CC BY 4.0). (http://creativecommons.org/licenses/by/4.0/)

A teacher's educational philosophy refers to their understanding of their own teaching abilities as well as the subjectivity of their students.[16]Research has indicated that a teacher's educational philosophy is one of the most important factors impacting the quality of teacher-child interaction. If teachers follow a 'child-centered' educational philosophy, they will use a variety of teaching strategies and methodologies to provide children agency in picture book teaching, fully leveraging their subjectivity and boosting the quality of teacher-child interaction.[17]

4.2 Children's Perspective

(1)The Physical and Mental Development Levels of Children

The quality of teacher-child interaction is strongly influenced by children's physical and mental development. Some researchers believe that the level of teacher-child interaction in senior classrooms is the best of the three age groups (big, medium, and tiny), with considerable variations between senior and junior courses, as well as senior and medium classes.[18]This could be because as children become older, their language expressive skills and autonomy in activities improve, allowing them to participate more successfully in instructional activities.[19]

(2)The Temperament Types of Children

Temperament is the most common and consistent personality feature in an individual, and it is directly tied to attentiveness. Individuals with different temperament types exhibit significantly varying levels of attentiveness.[20]Children with quick reaction speeds, high sensitivity, excitability, and flexibility are more active in activities, resulting in higher emotional experiences and learning results.[21]

Finally, elements influencing the quality of teacher-child interaction in picture book teaching include both teacher- and child-level components. The overall quality of teacher-child interaction in picture book teaching in Z Kindergarten's senior classes is medium-high, and it is closely related to the teacher's ability to teach picture books, educational philosophy, and the children's physical and mental development.

5.Conclusion and Educational Recommendations

5.1 Conclusion

The CLASS scale was utilized in this study to monitor and evaluate teacher-child interaction during picture book teaching in the senior classes at Z Kindergarten, and we analyzed the data using SPSS 21.0 software. The following conclusions have been drawn:

(1)The general quality of teacher-child interaction during picture book education in Z Kindergarten's senior classes is medium to high.

(2)Z Kindergarten had the lowest level of teacher-child interaction in the 'Classroom Organization' category for teaching picture books.

(3)There are some differences in the quality of teacher-child interaction between the two senior classes at Z

© 2024 by the author(s); licensee Mason Publish Group, this work for open access publication is under the Creative Commons Attribution International License (CC BY 4.0). (http://creativecommons.org/licenses/by/4.0/)

Kindergarten while teaching picture books, but they are not statistically significant.

5.2 Educational Recommendations

Although the overall quality of teacher-child connection in picture book teaching in Z Kindergarten's senior classes is commendable, there is still a lot of space for growth. Based on the research findings, this study makes some recommendations for picture book teaching in the senior classes at Z Kindergarten, with the goal of improving the quality of teacher-child interaction in future picture book teaching, achieving a higher level, and thus promoting children's development.

First, teachers should constantly enhance their picture book teaching skills, revise their teaching philosophy, and adopt a 'child-centered' perspective on children. All efforts should prioritize fostering children's agency and promoting their overall development as the guiding principle for teachers' actions.

Second, the kindergarten should give instructors with opportunities and platforms for professional development, thereby improving their overall teaching and management skills. This will help teachers to use activity time more efficiently and effectively, while also allowing children to maintain their excitement for learning.

Third, the kindergarten should expand the development of training courses targeted at enhancing the quality of teacher-child connection, assisting teachers in mastering the methods and approaches that will improve the quality of interaction.

6.Limitations and Future Prospects of the Study

This study used the CLASS scale to evaluate the current condition of teacher-child interaction in picture book teaching in Z Kindergarten's senior classes, and the findings serve as empirical references for future research. However, this study still has several shortcomings, particularly in the following aspects: First, consider the sample's limitations. This study used convenience sampling, and the sample is not representative, hence the external validity of the research findings is low and not generalizable. Second, consider the scientific nature of the scoring. Due to the researcher's limits in skills and talents, as well as the fact that the entire study was done separately, the scores for teacher-child interaction quality in picture book teaching at Z Kindergarten are extremely subjective, and scientific rigor remains to be determined. Finally, consider the depth and breadth of the causal analysis. In addition to the previously indicated teacher and child-level elements, other factors may influence the quality of teacher-child interaction in picture book teaching, although this study did not investigate them in depth. As a result, future study should focus on extending the sample size, improving the CLASS scale's usability, and deepening causal analysis.

References

[1] Lu Yao, Li Shanze. The Field of Kindergarten Curriculum Reform: Rational Discrimination, Relational Perspective, and Key Points [J]. Contemporary Education Forum, 1-10.
[2] Zhang Lijuan. A Study on the Applicability of the CLASS (PRE-K) Scale in Kindergarten Group Music Teaching [D];Zhejiang Normal University, 2018.

© 2024 by the author(s); licensee Mason Publish Group, this work for open access publication is under the Creative Commons Attribution International License (CC BY 4.0). (http://creativecommons.org/licenses/by/4.0/)

[3] Chen Yuewen, Liu Baogen. Research Progress and Future Outlook on the Relationship Between Preschool Education Quality and Child Development Based on Scientific Assessment [J]. Early Childhood Education Research, 2023, (02): 31-43.
[4] Li Huashu, Luo Qian. Analysis and Strategy Research on Teacher-Child Interaction Quality in Kindergarten Physical Activities — Based on Observational Analysis Using the CLASS Classroom Interaction Assessment System [J]. Fujian Education, 2023, (47): 18-22.
[5] Zhu Qiuke, Li Su. The Internal Mechanism of Teacher-Child Interaction Affecting Child Development: The Moderating Role of Multiple Factors [J]. Early Childhood Education Research, 2022, (09): 47-61.
[6] HU B Y, LI Y, WANG C, et al. Preschool teachers' self-efficacy, classroom process quality, and children's social skills: A multilevel mediation analysis [J]. Early Childhood Research Quarterly, 2021, 55: 242-51.
[7] HU B Y, CHEN L, FAN X. Profiles of teacher-child interaction quality in preschool classrooms and teachers' professional competence features [J]. Educational psychology, 2018, 38(3): 264-85.
[8] Song Aifen, Gai Xiaosong, Wang Guoxia, et al. The Impact of Teacher-Child Interaction and Teacher Qualifications on Children's School Readiness [J]. Educational Research and Experiment, 2023, (02): 129-136.
[9] Wang Huamei. A Study on the Impact of Kindergarten Teachers' Emotional Management on the Quality of Teacher-Child Interaction [D]; Qingdao University, 2021.
[10] Gao Qianzhi. A Study on the Quality of Teacher-Child Interaction in Picture Book Teaching Activities in Senior Kindergarten Classes [D]; Harbin Normal University, 2022.
[11] Liang Jiarui. A Study on Teacher-Child Interaction in Picture Book Teaching Activities in Xi'an Kindergarten [D]; Qinghai Normal University,2021.
[12] Jiang Luyi, Guo Liping, Lü Xue. A Meta-Analysis of Teacher-Child Interaction Research from the CLASS Perspective — Based on Teacher-Child Interaction Quality Evaluation Results from 892 Teachers in 14 Provinces and Cities in China [J]. Early Childhood Education Research, 2019, (04): 32-44.
[13] Ma Xue, Zhang Xiaomei. Review and Insights on Preschool Education Quality Evaluation Tools Based on Teacher-Child Interaction [J]. Journal of Daqing Normal University, 2020, 40(02): 104-113.
[14] Jiang Yamo. A Comparative Study of Teacher-Child Verbal Interaction Between Novice and Experienced Teachers in Picture Book Teaching [D]; Northwest Normal University,2021.
[15] Lin Tao, Pan Duoling. The Value, Issues, and Optimization of Picture Book Teaching [J]. Contemporary Educational Science, 2018, (10): 12-16.
[16] Zhao Qian, Yin Pei, Li Gang. Deepening, Internalizing, and Clarifying: The Transformation of Teachers' Educational Beliefs [J]. Educational Development Research, 2017, 37(04): 71-75.
[17] Mao Qinmei. An Analysis of Teacher-Child Interaction Behaviors in Kindergarten Group Teaching Activities — Based on the Application of the CLASS Evaluation System [J]. Pudong Education, 2024, (03): 71-75.
[18] Zhang Xiaomei. The Impact of Teacher-Child Interaction Quality on Preschool Children's Learning Quality and Its Educational Promotion [D]; Northeast Normal University,2016.
[19] Zhang Xun. The Impact of Teacher-Child Interaction Quality on Child Development: Evidence from Meta-Analysis [J]. Early Childhood Development, 2024, (04): 65-79.
[20] Zhang Manhua, Yang Fengchi, Zhou Mei, Liu Qing, Lü Fan. A Study on the Relationship Between Temperament and Attention Quality [J]. Chinese Journal of Behavioral Medicine and Sciences, 1999, (04): 32-34.

© 2024 by the author(s); licensee Mason Publish Group, this work for open access publication is under the Creative Commons Attribution International License (CC BY 4.0). (http://creativecommons.org/licenses/by/4.0/)

[21] Suo Changqing. Conceptual Analysis of Children's Learning Quality [J]. Early Childhood Education Research, 2019, (06): 35-44.

© 2024 by the author(s); licensee Mason Publish Group, this work for open access publication is under the Creative Commons Attribution International License (CC BY 4.0). (http://creativecommons.org/licenses/by/4.0/)