

# Early Childhood Teachers' Understanding and Practice of Inclusive Curriculum: A Mixed Method Study in Bandung

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## ABSTRACT

This study investigates Early Childhood Education (ECE) teachers' understanding and practice of inclusive curriculum implementation, and examines the role of training and collaboration in enhancing teacher competence. Employing a concurrent triangulation mixed-method design, quantitative and qualitative data were collected through questionnaires, in-depth interviews, observations, and document analysis. Simple random sampling was used for the survey, while purposive sampling identified key informants with direct experience in inclusive practices. The findings indicate that teachers demonstrate a relatively good conceptual understanding of inclusive principles, particularly in recognizing children's diversity, applying child-centered approaches, and valuing collaboration with parents and support staff. However, a significant gap persists between conceptual understanding and classroom practice, especially in adaptive lesson planning and differentiated instruction. Continuous professional training contributes positively to improving pedagogical competence, although institutional support and professional supervision remain limited. Collaboration among teachers, parents, and support staff is identified as a critical factor in fostering inclusive learning environments. Despite growing attention to inclusive education, prior studies have largely focused on teachers' perceptions rather than examining how such understanding is enacted in practice, particularly through the combined influence of training and collaborative support. This study highlights the need for sustained, reflective, practice-based training and strengthened professional partnerships to ensure effective, sustainable, inclusive curriculum implementation in ECE contexts.

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## 1. INTRODUCTION

Early Childhood Education (ECE) plays a strategic role in forming the foundation of children's cognitive, social, emotional, and moral development. At this stage, the right

educational intervention will determine the direction of children's sustainable, holistic, and developmental growth. Within a global framework, an inclusive education approach has been recognized as the key paradigm to guarantee that all children, including those with special needs, acquire an equal right to learn and thrive in a supportive and responsive environment [1]. Inclusion principles have been integrated into various education policies in many countries, including Indonesia, through the Independent Curriculum and the strengthening of Inclusive Early Childhood Education.

Recent scholarship emphasizes that inclusive curriculum implementation requires coherence between pedagogical competence, institutional leadership, and systemic policy alignment. Inclusive reform frequently encounters implementation barriers when structural and organizational adjustments do not accompany classroom-level initiatives [2]. Likewise, Chatzigeorgiadou's research shows the importance of adaptive classroom ecology and differentiated instructional strategies in sustaining inclusive early childhood environments [3].

In recent years, global syntheses have emphasized that teacher preparedness remains one of the strongest predictors of successful inclusive implementation, particularly in early childhood settings. A systematic review by Tristani and Bassett-Gunter [4] found that structured professional development significantly enhances teachers' inclusive competencies, attitudes, and classroom practices. Similarly, Sanches-Ferreira et al. [5] highlighted that inclusive preschool environments require not only positive beliefs but also concrete pedagogical strategies that facilitate meaningful teacher–child interaction. Recent studies from leading international journals also confirm that teacher competence and professional development are critical determinants of successful inclusive education implementation [6], [7], [8].

However, even with a policy framework in place, implementing an inclusive curriculum at the ECE unit level remains a complex challenge. One of the main factors that determines the success of implementation is teachers' conceptual understanding and practical application in translating the principles of inclusion into learning planning, implementation, and evaluation. [9] [10] Several studies show that there is a gap between teachers' positive attitudes towards inclusion and their ability to design curricula, design accommodative learning activities, and create adaptive and differentiating learning environments [11].

Early childhood education teachers are expected not only to understand the essence of inclusive education but also to master pedagogic competencies such as curriculum adaptation, preparation of Individual Learning Plans, and collaboration with families and other professionals [12]. A study by Amjad identified that attitudes, self-efficacy, and experiences of inclusive training are determinants of teachers' readiness to implement inclusive practices [13]. On the other hand, weak pre-employment and in-service training is a significant obstacle that hinders teachers' technical and practical understanding of the inclusive curriculum [14].

Inadequate pre-service and in-service preparation remains a primary structural barrier to inclusive implementation. A systematic review by Tristani and Bassett-Gunter [4] demonstrates that teachers who receive targeted, practice-based training exhibit significantly higher confidence and competence in adapting curricula and managing diverse classrooms.

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This suggests that professional development is not supplementary but foundational to inclusive education reform. A number of international studies suggest that teachers' understanding of inclusive education still varies. Fyssa found that teachers in Greece have a limited understanding, despite showing a positive attitude towards inclusion [9]. Similar cases were also found in Thailand [10]. In Kosovo [1], where teachers were aware of the importance of inclusion but felt ill-prepared due to limited training and resources, Kunwar and Kunwar emphasize the need for philosophical and pedagogical approaches that prioritize fairness and participation, rather than just physical access [12]. Meanwhile, Chatzigeorgiadou and Barouta recommend collaborative approaches, such as co-teaching between regular and special education teachers, to strengthen the implementation of an inclusive curriculum in early childhood education classrooms [3].

Indonesia's status as a developing country adds complexity to the implementation of inclusive education. Although the inclusion discourse has been mainstreamed, systematic studies exploring early childhood education teachers' understanding and practice of inclusive curriculum remain limited. Moreover, the research approach used is still dominated by a single (monomethodical) method, both qualitative and quantitative, so it has not been able to explain this phenomenon fully. In fact, the mixed-methods approach has great potential to integrate quantitative and qualitative data to comprehensively describe teachers' practices in the field. Despite increasing policy attention, empirical mixed-method studies examining both teachers' understanding and actual classroom practice of inclusive curriculum in Indonesian ECE contexts remain limited. Existing studies are largely dominated by single-method approaches, which restrict comprehensive insights into how conceptual understanding is translated into practice.

In addition to the limited representation of research on Southeast Asia, especially Indonesia, studies offering practical recommendations or operational models for strengthening inclusive curricula are also rare. Several constraints, such as lack of systemic support, training limitations, and suboptimal institutional mentoring policies, are inhibiting factors that have not been widely explained in contextual and applicative literature. [15]

Based on the description above, there is an urgent need to conduct research that not only explores teachers' conceptual understanding of inclusive curriculum but also examines how they implement it in daily learning and the factors that support or hinder its implementation. Therefore, this study aims to (1) explore the conceptual understanding of ECE teachers about the inclusive curriculum; (2) identify real practices carried out by teachers in implementing the principle of inclusion in the classroom; and (3) analyze internal and external factors that support or hinder the implementation of the inclusive curriculum in ECE institutions.

This study contributes to the literature in three ways. First, it provides empirical evidence by integrating teachers' conceptual understanding and classroom practice of inclusive curriculum implementation. Second, it applies a concurrent mixed-method design to capture both quantitative breadth and qualitative depth. Third, it offers practical implications for strengthening teacher training, institutional support, and collaborative practices in inclusive early childhood education.

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The findings of this study are expected to make a scientific and practical contribution to the development of teacher training policies, curriculum design, and institutional assistance strategies to strengthen the implementation of inclusive education from an early age.

## 2. METHOD

This study employed a concurrent triangulation mixed-method design, in which quantitative and qualitative data were collected simultaneously and integrated at the interpretation stage [16], [17]. This design begins with quantitative data collection and analysis, followed by qualitative data collection and analysis to deepen and explain the initial findings. [18], [19] This approach was chosen to integrate the power of statistical data with the depth of contextual understanding, especially in examining PAUD teachers' understanding and practice of an inclusive curriculum.

The population in this study comprises all PAUD teachers in the city of Bandung, totaling 200 teachers. The sample size was determined using the Slovin formula, with a 5% margin of error, so the minimum number of teacher respondents needed is approximately 127. The sampling technique used was simple random sampling [20], [21] to ensure equal opportunity for each member of the population to be selected into the sample. This selection was carried out using a list of PAUD teachers from the Bandung City Education Office as the sampling framework.

After quantitative data are obtained and analyzed, the research proceeds to the qualitative stage by purposively selecting key informants from the quantitative sample. Selection is based on representation of educational backgrounds, teaching experience, and involvement in inclusive practices, in order to obtain in-depth information about teachers' experiences and perceptions of inclusive curriculum.

Table 1. Results of Instrument Validity Testing (Pilot Study,  $n = 20$ )

Question Number	Pearson Correlation ( $r$ )	r-table ( $\alpha = 0.05$ ; $df = 18$ )	Validity Status
1	0.485	0.444	Valid
2	0.652	0.444	Valid
4	0.784	0.444	Valid
5	0.843	0.444	Valid
7	0.701	0.444	Valid
8	0.791	0.444	Valid
9	0.730	0.444	Valid
11	0.613	0.444	Valid
12	0.798	0.444	Valid
13	0.809	0.444	Valid
14	0.453	0.444	Valid
15	0.606	0.444	Valid
16	0.766	0.444	Valid
17	0.698	0.444	Valid
18	0.755	0.444	Valid
19	0.633	0.444	Valid
20	0.503	0.444	Valid

Quantitative instruments, such as Likert-scale questionnaires, are compiled based on theories and results from previous studies [9], [12]. The content validity test was carried

out using product-moment correlation, namely by comparing the Pearson correlation coefficient and the r-value from the table, with a 5% margin of error [17]. The detailed results of the validity test are presented in Table 1.

To test the instrument's reliability, SPSS was used to compare Cronbach's Alpha with 0.60. Using SPSS, reliability data were obtained, as shown in the table below.

Table 2. Instrument Reliability Summary

Aspect Measured	No. of Items	Cronbach's Alpha	Interpretation
Early Childhood Teachers' Understanding and Practice of Inclusive Curriculum	17	0.928	High Reliability

Based on Table 2 above, Cronbach's alpha is greater than 0.60, with a value of 0.928. Thus, this research instrument is highly reliable and suitable for use in research.

Quantitative data were collected first by distributing questionnaires, both directly and online, to 127 PAUD teachers. After descriptive and inferential statistical analyses were conducted, in-depth interviews and observations of a selected number of teachers from the quantitative sample were conducted. Quantitative data were analyzed using statistical software (SPSS), including descriptive statistics (mean and standard deviation) and inferential statistics (correlation and differential analyses). Meanwhile, qualitative data were analyzed using thematic analysis to identify the main themes emerging from the interview results [22]. The results from both data types were combined at the interpretation stage by connecting and merging them. This results in a holistic understanding of how early childhood teachers approach and implement inclusive curricula, as well as the challenges they face.

### 3. RESULTS AND DISCUSSION

#### 3.1. Results

This study analyzes ECE teachers' understanding and practice of the inclusive curriculum using a 20-item questionnaire. Each statement reflects conceptual, pedagogic, collaborative, and institutional support aspects in the context of implementing an inclusive curriculum. The rating scale uses a 1–5 Likert scale, with 1 indicating very strong disagreement and 5 indicating very strong agreement.

The results of the descriptive analysis of all items show that most teachers show a fairly high level of understanding and acceptance of inclusive education principles and practices. Some items have high average scores, while others show weaknesses in institutional aspects and pedagogic capacity. Table 3 below presents descriptive statistics from each questionnaire item.

Table 3 presents descriptive statistics on early childhood education (ECE) teachers' understanding and practice of the inclusive curriculum (N = 127). The overall mean scores indicate that teachers demonstrate a relatively good understanding of inclusive education concepts, though variations exist across specific domains.

Table 3. Descriptive Statistics of Early Childhood Teachers' Understanding and Practice of Inclusive Curriculum (N = 127)

No.	Statement	Mean	Standard Deviation
Q1	The basic concept of inclusive education	3,91	0,60
Q2	Characteristics of children with special needs	4,01	0,73
Q3	Accommodative learning strategies	3,57	0,76
Q4	Preparation of an inclusive RPPH	3,46	0,90
Q5	Collaboration with ABK parents	4,34	0,78
Q6	Inclusive PAUD regulations/policies	3,62	0,81
Q7	Prepared an RPPH for ABK	2,99	1,19
Q8	Classroom environment adaptation	3,98	0,89
Q9	Use of differentiation approaches	3,96	0,89
Q10	Coordination with ABK parents	4,38	0,79
Q11	Involvement of ABK in all classroom activities	4,05	0,92
Q12	Individual and flexible assessment	3,78	1,01
Q13	Ability to manage inclusive classes	3,35	0,84
Q14	The institution provides inclusive training	2,91	1,17
Q15	Special learning media available	3,14	1,02
Q16	Support from principals/fellow teachers	3,77	0,98
Q17	Need for inclusive advanced training	4,50	0,73

The highest mean score was found in the need for further inclusive training ( $M = 4.50$ ,  $SD = 0.73$ ), suggesting a strong awareness among teachers of the importance of continuous professional development in inclusive practices. Similarly, high mean values were observed in coordination with parents of children with special needs ( $M = 4.38$ ,  $SD = 0.79$ ) and collaboration with parents of children with special needs ( $M = 4.34$ ,  $SD = 0.78$ ). These findings indicate that interpersonal collaboration and parent–teacher partnerships are well-established aspects of teachers' inclusive practices.

Teachers also reported strong performance in involving children with special needs in classroom activities ( $M = 4.05$ ,  $SD = 0.92$ ) and in recognizing children's characteristics ( $M = 4.01$ ,  $SD = 0.73$ ). This suggests that teachers can foster inclusive participation and recognize learners' individual differences.

However, relatively lower scores were observed in several areas, reflecting practical challenges in implementing inclusive education. For example, the preparation of inclusive lesson plans (RPPH) ( $M = 3.46$ ,  $SD = 0.90$ ) and the ability to manage inclusive classrooms ( $M = 3.35$ ,  $SD = 0.84$ ) were rated moderately, indicating that teachers may need further guidance and structured support in adapting instructional designs. The lowest mean scores were observed in institutional provision of inclusive training ( $M = 2.91$ ,  $SD = 1.17$ ) and in experience developing lesson plans for children with special needs ( $M = 2.99$ ,  $SD = 1.19$ ). These data reveal institutional and experiential gaps in the systemic support for the implementation of inclusive education.

In terms of pedagogical strategies, the mean scores for adaptive learning strategies ( $M = 3.57$ ,  $SD = 0.76$ ), use of differentiated approaches ( $M = 3.96$ ,  $SD = 0.89$ ), and individual and flexible assessment ( $M = 3.78$ ,  $SD = 1.01$ ) demonstrate teachers' moderate readiness to accommodate diverse learning needs. Meanwhile, support from principals and colleagues ( $M = 3.77$ ,  $SD = 0.98$ ) was moderately high, reflecting a positive collaborative environment that still requires strengthening.

Overall, the descriptive results indicate that while ECE teachers exhibit a solid conceptual understanding of inclusive education and strong collaborative practices with parents, significant challenges remain in institutional support, preparation of inclusive lesson plans, and professional training. These findings underscore the need for systemic, ongoing professional development to enhance inclusive pedagogical competencies and ensure equitable learning opportunities for all children.

Qualitative data from in-depth interviews convincingly corroborate these quantitative findings. The informants were able to articulate the definition of an inclusive curriculum with clarity and accuracy, demonstrating a depth of understanding that goes beyond mere surface knowledge. For example, an informant provides a very structured definition:

*"Kurikulum inklusif di PAUD adalah pendekatan kurikulum yang dirancang untuk memastikan bahwa semua anak, termasuk anak-anak dengan kebutuhan khusus, memperoleh akses, partisipasi, dan pencapaian yang setara... menekankan pada penerimaan, penghargaan terhadap keberagaman, dan pengembangan potensi setiap anak secara optimal." (Informant 8)*

This definition touches not only on access but also on participation and potential development, which are the essence of true inclusion. Other informants provided a more concise but still targeted definition, emphasizing the aspects of equality and a shared learning environment:

*"Kurikulum inklusif adalah pendekatan dalam penyelenggaraan pendidikan yang memberikan kesempatan yang sama kepada semua anak, termasuk anak berkebutuhan khusus, untuk belajar bersama dalam satu lingkungan pendidikan." (Informant 11)*

This consistency between quantitative data (high average score) and qualitative data (articulate definition) confirms that teachers' conceptual awareness and knowledge are not the main barriers in the implementation of inclusive education. These findings are in line with various international studies that show that teachers often have a positive attitude and a good basic understanding of inclusion, although practice in the field still faces obstacles. Thus, the foundation for building better inclusive practices is in the teachers.

Qualitative data provides a deeper context for these numbers. The teacher actually understands the ideal steps to take. An informant is able to detail a comprehensive set of actions necessary for curriculum adaptation:

*"Pahami karakteristik anak secara menyeluruh, Buat RPI untuk ABK, adaptasi tujuan pembelajaran, variasikan metode dan media pembelajaran, ciptakan Link belajar inklusif dan aman, kelompokkan anak secara fleksibel, gunakan penilaian autentik dan libatkan ortu atau tim pendukung." (Informant 3)*

This list of actions shows that the teacher *knows* what to do. However, statements from other informants reveal the root of the difficulty in translating this knowledge into everyday practice. One of the main obstacles is the absence of a formal curriculum framework and support from institutions:

*"Untuk anak ADHD yang sifatnya pasif atau aktif tetap diberikan pembelajaran sesuai kelas reguler seperti biasa karena belum disediakannya kurikulum khusus inklusif." (Informant 7)*

Quantitative data emphatically show that collaboration with parents is the most established and highest-rated aspect of teachers' inclusive practices. The statement items

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"Collaboration with parents of children" and "Coordination with parents of children" (Q10) recorded the highest average scores among all practice items, respectively. This very high score indicates that the teacher-parent partnership is not just a concept but an active, consistent practice.

Qualitative interviews provide a vivid picture of *how* this collaboration is manifested in everyday practice. Teachers use a variety of structured and responsive communication methods. An informant explains the practical tools he uses:

*"Melalui Buku Komunikasi yang disampaikan setiap hari dan viaWA atau Telepon untuk kondisi tertentu, kadangkala orang tua diundang hadir ke sekolah." (Informant 1)*

More than just a tool, this collaboration is built on a strong relational foundation, including trust, two-way communication, and active parental involvement in the educational process. Another informant clearly expressed this:

*"Bangun kepercayaan sejak awal, lakukan komunikasi rutin 2 arah, sampaikan informasi perkembangan anak dengan bahasa positif, undang orang tua dalam proses perencanaan pembelajaran..." (Informant 3)*

The principles underlying these interactions are also well understood, where empathy and openness are key. As emphasized by Informant 8, *"Komunikasi dibangun atas dasar empati, saling percaya, keterbukaan, dan kolaborasi untuk mendukung perkembangan anak"*. This convergence of very high quantitative scores and rich, in-depth qualitative descriptions confirms that partnerships with parents are a key pillar in teachers' inclusive practices. This result resonates with broader empirical findings that relational trust, reciprocal communication, and shared responsibility significantly enhance inclusive classroom effectiveness and child participation outcomes [23].

Before conducting a parametric statistical analysis to test the hypothesis, the first step is to test the assumption of data normality. This normality test aims to determine whether the data on teachers' understanding and practice regarding the inclusive curriculum are normally distributed. The test was conducted using the Shapiro-Wilk method, which is recommended for samples with fewer than 2000 respondents. The data in this study came from 127 respondents. The results of the normality test are presented in the table below.

Table 4. Tests of Normality

Kolmogorov-Smirnov <sup>a</sup>		Shapiro-Wilk			
Statistic	df	Sig.	Statistic	df	Sig.
.072	127	.100	.983	127	.111

a. Lilliefors Significance Correction

Based on Table 4, the Shapiro-Wilk normality test yielded a significance value (Sig.) of 0.111. The basis for decision-making in the normality test is that if the significance value (Sig.) > 0.05, then the data is concluded to be normally distributed. If the significance value (Sig.) is < 0.05, the data are not normally distributed. Because the significance value obtained was 0.111, which is greater than the alpha ( $\alpha$ ) level of 0.05, it can be concluded that

the research data for the variables of PAUD teachers' understanding and practice of inclusive curriculum are normally distributed.

***Test of Teachers' Understanding and Practice Based on Linearity and Participation in Training***

After it was confirmed that the research data met the assumption of normality, the next analysis tested differences in PAUD teachers' levels of understanding and practice of the inclusive curriculum across the study program groups that use a linear or non-linear approach. This analysis aims to determine whether there is a significant difference between the two groups. The results of the descriptive statistical test and *the Independent Samples Test* are presented in the following table.

Table 5. Descriptive Statistics based on Education Linearity and Participation in Training

	Group	N	Mean	Std. Deviation	Std. Error Mean
Understanding and Practice	Linier	65	65.354	10.0785	1.2501
	Non Linear	62	62.180	9.8345	1.2592
	Training	63	67.794	11.0427	1.3912
	Non Training	64	59.734	7.0311	.8789

Table 6. Independent Samples Test

Levene's Test for Equality of Variances					
Equal variances assumed	F	Sig.	t	df	Sig. (2-tailed)
Educational Linearity	.091	.764	1.787	124	.076
Participation in Training	11.735	.001	4.914	125	.000

The average comprehension and practice scores in the linear group (M = 65,354, SD = 10.08) were higher than in the non-linear group (M = 62,180, SD = 9.83). This difference shows that teachers who graduated from the PAUD study program tend to give better results. Based on descriptive statistics, the group of teachers who participated in the training has an average score of M = 67.79 (SD = 11.04), while the group of teachers who did not participate in the training has an average score of M = 59.73 (SD = 7.03). The average difference of 8.06 points indicates that teachers who have participated in the training have a better understanding and practice of the inclusive curriculum than those who have not.

The results of *Levene's Test for Equality of Variances* for the independent t-test showed an F-value of 0.091 and a Sig. value. = 0.764, which means that the variance of the two groups is homogeneous (p > 0.05). Thus, the assumption of similarity of variance is fulfilled, so that the interpretation of the t-test results can use the line "equal variances assumed". The value of *t* was obtained as  $t(124) = 1.787$  with Sig. (2-tailed) = 0.076. Because the significance value is greater than 0.05, there is no statistically significant difference between the understanding and practice of PAUD teachers from linear and non-linear study programs in the inclusive curriculum.

However, the difference in average shows a practically meaningful trend, with teachers with linear backgrounds seeming to understand the concept and application of an inclusive curriculum better than those from non-linear study programs. These findings

indicate that the suitability of educational background with the field of early childhood education contributes to the level of understanding and application of inclusive principles in early childhood education institutions. However, the difference is not statistically significant.

The next analysis was conducted to determine differences in PAUD teachers' levels of understanding and practice of the inclusive curriculum, based on their participation in inclusion training. The data was analyzed using *the Independent Samples Test* after meeting the normality assumptions.

The results of *Levene's Test for Equality of Variances* showed an F-statistic of 11.735 ( $p < 0.001$ ), indicating that the variances of the two groups are not homogeneous. Therefore, the interpretation of the t-test results is carried out using *the equal-variance assumption line*. Based on the test results,  $t(104.92) = 4.897$ , with a significance level of  $p < 0.001$ . Thus, it can be concluded that there is a significant difference between teachers who have participated in the training and those who have not participated in the training in terms of understanding and practice of the inclusive curriculum.

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This difference shows that inclusion training positively affects PAUD teachers' knowledge and skills in applying the principles of inclusive education. Teachers who have participated in the training tend to have a stronger conceptual understanding, more accommodating learning strategies, and a better ability to manage the diversity of students in the classroom. These results confirm the importance of continuous training programs for PAUD teachers to support the effective and sustainable implementation of an inclusive curriculum.

Qualitative data brings these statistical findings to life by illustrating the stark differences in experience between trained and non-trained teachers. Teachers who have attended the training explicitly attribute the experience to increased confidence and the acquisition of practical skills. An informant stated: "*Setelah pelatihan saya lebih percaya diri untuk menciptakan lingkungan belajar yang ramah untuk menghargai perbedaan di kelas saya.*" (Informant 2)

This confidence is supported by mastery of concrete tools and methods. Another informant explained the specific skills he had acquired: "*Dari hasil pelatihan ini, guru dapat melakukan observasi yang lebih akurat untuk direkomendasikan kepada tim psikolog sekolah.*" (Informant 1).

This experience is in stark contrast to the statements of teachers who have never received training. Their answers are often short and direct, as expressed by Informant 6 ("never"), Informant 7 ("Never"), and Informant 8 ("Never"). However, the absence of this experience does not mean the absence of interest. Rather, there is a strong desire to learn that

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is latent in it, as expressed hopefully by an informant: "*Belum pernah, tapi jika ada kesempatan ingin belajar.*" (Informant 10)

### ***Test of Differences in Teachers' Understanding and Practice Based on Teaching Experience***

Based on the descriptive analysis, the average scores for teachers' understanding and practice of the inclusive curriculum differ across work-period groups.

Table 7. Statistical Results of Tests Differ Based on Teaching Experience

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Less than 5 years	27	64.815	10.2920	1.9807	60.743	68.886
6-10 Years	34	62.529	7.9210	1.3584	59.766	65.293
More than 10 Years	66	63.909	10.9751	1.3509	61.211	66.607
Total	127	63.732	10.0542	.8922	61.967	65.498

Based on the table above, teachers with a working period of less than 5 years have an average score of 64.82 (SD = 10.29), teachers with a working period of 6–10 years have an average of 62.53 (SD = 7.92), while teachers with a working period of more than 10 years get an average of 63.91 (SD = 10.98). In general, teachers with less than 5 years of service had slightly higher comprehension and practice scores than the other two groups.

Table 8. ANOVA One-Way Test: Teacher Understanding and Practice

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	82.898	2	41.449	.406	.667
Within Groups	12653.999	124	102.048		
Total	12736.898	126			

The ANOVA results showed that  $F = 0.406$ ,  $\text{Sig.} = 0.667$ , which means that the significance value is greater than 0.05. Thus, there is no significant difference in teachers' understanding and practice of the inclusive curriculum by tenure. This means that teachers' tenure (less than 5 years, 6–10 years, and more than 10 years) does not significantly affect their level of understanding and practice in implementing an inclusive curriculum.

These findings indicate that tenure is not the main differentiator in teachers' ability to understand and implement an inclusive curriculum. Most likely, teachers' understanding and practice are more influenced by factors such as training experience, institutional support, and access to relevant learning resources.

### ***Post Hoc Test of Teachers' Understanding and Practice Based on Teaching Experience***

After ANOVA found no significant differences in teachers' working hours in terms of understanding and practice, a further test (*Post Hoc Test*) was carried out using the Tukey HSD method to examine differences between pairs of groups more specifically.

The results of the Tukey HSD test showed that the overall significance value ( $\text{Sig.}$ ) between group pairs was greater than 0.05; namely, the comparison between teachers with less than 5 years of work experience and those with 6–10 years of work experience showed a  $\text{Sig. value.} = 0.655$ ; The comparison between less than 5 years and more than 10 years

yields  $Sig. = 0.919$ ; and the comparison between 6–10 years and more than 10 years yields  $Sig. = 0.794$ .

Table 9. Tukey HSD

(I) Work experience	(J) Work experience	Mean Difference (I-J)	Std. Error	Sig.
Less than 5 years	6-10 Years	2.2854	2.6040	.655
	More than 10 Years	.9057	2.3078	.919
6-10 Years	Less than 5 years	-2.2854	2.6040	.655
	More than 10 Years	-1.3797	2.1325	.794
More than 10 Years	Less than 5 years	-.9057	2.3078	.919
	6-10 Years	1.3797	2.1325	.794

Because the total  $Sig.$  With a value  $> 0.05$ , it can be concluded that there is no significant difference in teachers' understanding and practice of the inclusive curriculum across work-experience groups. The small mean difference between groups also reinforces the finding that teachers' levels of understanding and practice are relatively uniform, regardless of their length of work experience.

Thus, the results of this follow-up test are consistent with the ANOVA results, which show that teachers' work experience is not a significant differentiating factor in the level of understanding and practice of the inclusive curriculum. This suggests that longer work experience does not necessarily imply a significant improvement in teachers' ability to understand and implement an inclusive curriculum. Other factors such as training experience, continuing education, and institutional support are thought to have a stronger influence on these competencies.

### 3.2 Discussion

A central finding of this study is the persistent gap between teachers' conceptual understanding of inclusive education and their practical implementation in classroom settings. While teachers demonstrate adequate knowledge of inclusive principles, this understanding is not consistently translated into adaptive teaching practices. This study contributes to the literature by providing empirical evidence of the theory-practice gap in inclusive curriculum implementation within the Indonesian ECE context, using a mixed-methods approach.

Quantitative data clearly show this paradox. On the one hand, teachers demonstrate strong mastery of fundamental concepts, as evidenced by high average scores on understanding "basic concepts of inclusive education" and "characteristics of children with special needs". This positive conceptual foundation, however, is sharply inversely proportional to the much lower scores in practical pedagogy. This is evident in their ability to "prepare an inclusive RPPH" and, most revealingly, in their real-life experience in "having prepared an RPPH for crew members". This average difference approaching one full point represents a substantial gap between knowing *what* inclusion is and knowing *how* to implement it.

These findings are consistent with previous studies, which report a similar gap between teachers' positive attitudes toward inclusion and their limited ability to implement

inclusive practices. This study reinforces these findings while providing contextual evidence from Indonesian early childhood education. A study in Greece by Fyssa, Vlachou, and Avramidis [9] found that early childhood teachers have a limited understanding despite showing a positive attitude. Similarly, research by Bruns and Mogharreban in the United States reported that early childhood practitioners, despite positive beliefs about inclusion, felt less confident in implementing specific strategies, such as Individualized Learning Plans and alternative forms of communication [11]. This gap between belief and practice has been identified as a recurring challenge globally, where teachers often feel insecure and incompetent in modifying curricula to meet diverse learning needs [24]. Sanches-Ferreira evaluated strategies that facilitate teacher-child interaction in inclusive early childhood education classrooms through a survey of 89 preschool teachers in Portugal. They found that teachers considered the inclusive strategy more *desirable than feasible*, especially due to their knowledge constraints [5]. The results indicate that the theory–structural factors, including limited professional training, insufficient institutional support, and lack of operational guidelines, primarily drive the practice gap. Therefore, the challenge should be understood as a systemic issue rather than an individual deficiency. This finding aligns with prior research indicating that structural and institutional factors play a significant role in shaping inclusive practices [25].

Qualitative findings provide deeper insights into this gap. Teachers were able to describe inclusive principles and curriculum adaptation strategies in detail, indicating that their understanding is not superficial but well-developed. Description of the ideal process for curriculum adaptation, detailed by Informant 3, "*Pahami karakteristik anak secara menyeluruh, Buat RPI untuk ABK, adaptasi tujuan pembelajaran, variasikan metode dan media pembelajaran...*" shows that the theoretical knowledge of the teachers is not superficial, but deep and well-structured. This refutes the assumption that teachers do not know what to do. However, this knowledge has become powerless due to the absence of an institutional framework. Statement from Informant 7, "*...karena belum disediakannya kurikulum khusus inklusif,*" is critical evidence that directly links practice failures to systemic deficits, not personal. However, teachers reported difficulties in applying these strategies due to a lack of institutional support, the absence of structured, inclusive curriculum guidelines, and limited access to practical training. This suggests that the gap is influenced more by systemic constraints than by individual teacher limitations.

Thus, the general interpretation of the theory-practice gap, which often implicitly blames practitioners for failing to apply what they have learned, needs to be reviewed. The findings of this study challenge that narrative. The combination of high conceptual scores, detailed qualitative descriptions of ideal practices, and explicit statements about the absence of a formal curriculum framework allows us to reframe this issue. The gap is not a failure of teacher cognition or motivation, but rather a direct consequence of the lack of possible structures, resources, and clear institutional guidance. This finding aligns with policy enactment theory, which argues that educational reforms frequently weaken during school-level translation due to contextual pressures and limited structural support [26].

An analysis of the factors that differentiate teacher competencies shows that active and targeted professional development is the single most powerful catalyst for enhancing

inclusive practice. In contrast, factors such as general teaching experience and the linearity of educational background, while seemingly relevant, proved to be statistically insignificant. This indicates that inclusive pedagogy is a specific set of skills that must be taught explicitly and cannot be passively absorbed over time.

The most statistically significant finding from this study is a very significant difference in competence levels between teachers who have participated in inclusive education training and those who have not. This average difference of more than eight points is a strong indicator of the impact of training. The international literature widely supports these findings. This finding is consistent with studies showing that targeted professional development significantly improves teachers' inclusive competencies and classroom practices [27], [28]. Systematic reviews consistently show that training interventions produce positive outcomes on teachers' attitudes, knowledge, and, most importantly, practical skills and strategies. Inadequate training is repeatedly cited as a major barrier to quality inclusion [4]. Boychuk [29] emphasized the need to revise the PAUD teacher training curriculum to include material on educating early childhood children with special needs in the context of global challenges. This research emphasizes new competencies that early childhood teachers must have, including innovative understanding, the ability to provide psychological support, and creative learning strategies for inclusive children.

Qualitative data brings these statistical findings to life. Informant Statement 2, "*Setelah pelatihan saya lebih percaya diri untuk menciptakan lingkungan belajar yang ramah...*," directly links training to increased self-efficacy. Informant 1's comments about his ability to "*Make more accurate observations to be recommended to the school psychologist team*" demonstrate specific and tangible skill acquisition. This experience stands in stark contrast to that of the untrained teacher, who often gives short answers such as "no" or "never," yet is accompanied by a strong pent-up desire to learn, as revealed by Informant 10: "*Belum pernah, tapi jika ada kesempatan ingin belajar*".

In contrast, this study did not find significant differences in competencies based on length of work experience. Although teachers with less than 5 years of work experience had slightly higher average scores, the difference was not statistically significant. Similarly, although teachers with a linear early childhood education background score slightly higher, the difference is not statistically significant.

A finding that is not significant for "length of work experience" is not a null result; it is very important. This suggests that in the absence of targeted training and a supportive system, teachers' inclusive practices may stagnate early in their careers. Simply "running the job" for 5, 10, or 15 years does not automatically grow the advanced skills needed for inclusion. This challenges the conventional wisdom that seniority equals expertise. Many veteran teachers completed their pre-tenure education at a time when inclusion was minimal, and attitudes and beliefs formed during that period were often difficult to change without intervention. [30] If teachers are not equipped with new models and skills through in-service training, they are likely to continue to apply pedagogical habits formed early in their careers. Therefore, 10 years of experience may be equivalent to 1 year repeated 10 times. The absence of significant differences in teaching experience challenges the assumption that seniority automatically confers inclusive expertise. Research suggests that professional

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growth in inclusive pedagogy requires intentional reflective practice and continuous learning opportunities rather than mere accumulation of years in service [30]. Without targeted intervention, pedagogical routines may remain unchanged over time. These findings debunk the myth of expertise through seniority in this domain and underscore that inclusive education is a distinct, ever-evolving field of practice that requires intentional, continuous professional development rather than simply the accumulation of time in the classroom.

One of the most positive findings of the study is the unusually strong and well-established practice of teacher-parent collaboration. This is not only seen as a positive outcome but also as a critical asset and foundation of the inclusive PAUD ecosystem in Indonesia. In contexts where institutional structures are weaker, these partnerships can serve as a vital compensatory support mechanism.

Quantitative data emphatically highlight this strength. The highest average score among all questionnaire items was recorded in "Coordination with parents of children with children" and "Collaboration with parents of children with children". This very high score, coupled with the low standard deviation, indicates consistent and widespread use of the force by teachers.

Qualitative data provide rich, textured evidence of *how* this collaboration is realized. This practice is not abstract but highly operational, using tools such as "*Buku Komunikasi*" and *komunikasi langsung via WhatsApp atau telepon* (Informant 1). Furthermore, this collaboration builds on a strong relational foundation, which includes the principles of "empathy, mutual trust, openness" (Informant 8). It aligns with international best practice models that emphasize partnerships built on shared goals, trust, and mutual respect. Other literature has consistently affirmed the importance of family-school partnerships as an essential component for successful inclusion [31]. Parents have invaluable, unique insights into their child's strengths and needs, and their involvement ensures consistency between the home and school environment.

Zulauf-McCurdy [23] conducted a systematic review of interventions to improve teacher-parent relationships in early childhood education. Only 9 studies out of 1,992 manuscripts met the inclusion criteria, suggesting that this type of intervention research remains very limited. They noted that existing interventions still lack in understanding of the social processes between teachers and parents, as well as in strategies and outcome measurement. The main contribution of this article is a call for further research to develop inexpensive and practical interventions to improve the quality of teacher-parent collaboration in early childhood education.

At the institutional level, this study's findings highlight weak institutional support and limited resources. This deficit is critical because school leadership is a key driver of inclusive culture. A literature review on *Supporting Inclusive School Leadership* (SISL) identifies three core functions of leaders: setting vision, human resource development (i.e., providing training), and organizational development (i.e., allocating resources) [32]

On a broader level, these findings need to be linked to the context of Indonesia's national policies, especially the Independent Curriculum, which embodies inclusive principles. The study's results show a discrepancy between national policy aspirations and reality on the ground. A national policy, however well-intentioned, will not be enough

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without a coherent policy framework for funding, teacher training, curriculum development, and accountability at the local and school levels. These findings highlight the need for a more integrated policy ecosystem that supports leaders and teachers in translating vision into practice.

These findings imply the need for continuous, practice-oriented professional development programs that focus on real classroom implementation. Strengthening collaboration among teachers, parents, and support staff, as well as enhancing institutional support systems, is essential for effective inclusive curriculum implementation. This study has several limitations. First, it is limited to a single geographical area (Bandung), which may limit the generalizability of the findings. Second, the sample size may not fully represent the diversity of ECE teachers in Indonesia. Third, the use of self-reported data may introduce response bias. Future research is recommended to expand the study across multiple regions, employ longitudinal designs, and incorporate observational or experimental methods to provide more objective insights into inclusive classroom practices.

#### 4. CONCLUSION

Based on the research results and discussions, it can be concluded that PAUD teachers' understanding and practice of the inclusive curriculum are at a fairly good level, although they are not evenly distributed across the institution. Most teachers have understood the basic principles of inclusive education, such as accepting children's diversity, adopting child-centered learning approaches, and the importance of collaboration between teachers and parents. However, in practice, there is still a gap between conceptual understanding and application in the field, especially in terms of curriculum adjustments, the preparation of RPPH that is responsive to the needs of children with special needs, and the use of differential learning strategies.

On a broader level, these findings need to be linked to the context of Indonesia's national policies, especially the Independent Curriculum, which embodies inclusive principles. The study's results show a discrepancy between national policy aspirations and reality on the ground. A national policy, however well-intentioned, will not be enough without a coherent policy framework for funding, teacher training, curriculum development, and accountability at the local and school levels. These findings highlight the need for a more integrated policy ecosystem that supports leaders and teachers in translating vision into practice.

This study has several limitations. First, the study was conducted in a single geographical area (Bandung), which may limit the generalizability of the findings to other contexts. Second, the sample size, although sufficient for analysis, may not fully represent the diversity of Early Childhood Education (ECE) teachers in Indonesia. Third, the use of self-reported data may introduce response bias, as participants may provide socially desirable answers.

Future research is recommended to expand the study across multiple regions to improve generalizability. In addition, longitudinal studies are needed to examine changes in teachers' competencies over time. Further research may also incorporate observational or

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experimental approaches to provide more objective insights into the implementation of inclusive curriculum practices in early childhood education.

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