



Inclusive Teaching Strategies and Student-Perceived Outcomes in Primary Inclusive Schools: Insights from Jabodetabek, Indonesia

Anisa Rahmadani^{1*}, Yuliana Mukti², Rahmi Nur Syamsina³

^{1*}Islamic Guidance Counseling, ²Psychology, Faculty Psychology and Education, Universitas Al-Azhar Indonesia.

³SLB Negeri 01 Jakarta, Indonesia.

*Corresponding Author. Email: anisa.rahmadani@uai.ac.id

Abstract: This study aims to investigate the correlation between inclusive teaching strategies and their impact on the outcomes of inclusive education. Using a descriptive quantitative design, this study involved inclusive elementary school students (n = 339) in the Jakarta, Bogor, Depok, Tangerang, and Bekasi areas. Data were collected through the Perception of Inclusion questionnaire (n = 12) and Inclusive Teaching Strategies Scale (n = 29). Hierarchical regression tests were used to examine the relationship between variables and dimensions of teacher teaching strategies that most influenced inclusive outcomes. The results showed that Values & Attitudes accounted for 37% of the variance in inclusion outcomes ($R^2 = 0.37$; $\beta = 0.60$, $p < 0.01$). Adding Management & Environment increased the explained variance to $R^2 = 0.41$ ($\beta = 0.26$, $p < 0.01$), and adding Teaching & Instruction further raised it to $R^2 = 0.43$ ($\beta = 0.18$, $p < 0.01$). In the final model, all subscales remained significant (Values & Attitudes $\beta = 0.35$; Management & Environment $\beta = 0.20$; Teaching & Instruction $\beta = 0.18$; all $p < 0.01$), identifying teacher Values & Attitudes as the strongest predictor. Findings underscore the need to prioritize teacher mindset development, proactive classroom management routines, and differentiated instruction to strengthen inclusive outcomes. Stakeholders should implement programs that raise awareness and promote diversity among students to foster more positive attitudes and values toward inclusion.

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Introduction

Efforts to promote inclusive education have emerged as a global priority (Li et al., 2022). In Indonesia, the commitment to inclusive education was formally established in 2003 through the enactment of the National Education Law No. 20 and reinforced by Ministerial Decree No. 70 on Inclusive Education Services (Darma & Rusyidi, 2015). The initial implementation began at the elementary school level, with selected public elementary schools designated as pilot institutions for inclusive practices (Kurniawati, 2021). The policy has been progressively operationalized through the provision of teaching aids, professional development programs, and the deployment of special education teachers to support the development of instructional strategies tailored to the needs of students with disabilities (Kurniawati, 2021). Over time, inclusive education policies have been extended to encompass the elementary, secondary, and upper-secondary levels, with regional governments mandated to accommodate students with special needs through local regulations. Concurrently, the conceptualization of inclusive education has evolved. It is no longer limited to the integration of students with disabilities into mainstream classrooms, but now encompasses the broader



goal of embracing student diversity and ensuring that all learners experience meaningful participation and a sense of belonging within the educational environment.

The implementation of inclusive education not only brings challenges to change philosophical matters but also practical ones. Molbaek (2018) highlighted that there is a gap between the vision of developing education toward inclusion, and teachers' daily practices. A study found that teachers are not confident (Kurniawati, 2021) and do not have enough time to determine learning strategies with the diverse needs of students (Riahta & Kurniawati, 2019). Teachers' concerns regarding their capabilities in implementing teaching strategies are also influenced by the lack of training and lack of pedagogical knowledge of teaching in inclusive classes (Makoelle, 2020). Indonesian classrooms also face uneven enabling conditions, such as variability in teacher preparedness and differences in resources between public and private schools. A study in Indonesia found that although teachers have a positive attitude and claim to be ready to implement inclusion, there were findings that teachers were worried about their competencies and the implementation of learning in classes involving children with special needs (Andriyan et al., 2023; Ulfa & Wardany, 2022). The direct impact in the classroom is the provision of teaching strategies as an activity that needs to be modified to achieve the expected outcomes or outputs of inclusive education. It needs to be a focus of attention because the teacher's teaching strategy has a major influence on educational outcomes and the opportunities for students (both SEN and non-SEN) to participate academically, socially, and emotionally (Molbaek, 2018).

Although existing research indicates that teachers have not yet fully optimized the implementation of inclusive teaching strategies (Kurniawati, 2021; Makoelle, 2020; Molbaek, 2018), the practice of inclusive education continues to evolve and requires ongoing evaluation—particularly from the perspective of students, who serve as key indicators of the quality and effectiveness of instruction. This is intrinsically linked to the outcomes of inclusive education, which reflect the extent to which students experience the intended benefits of inclusive practices. Prior studies have identified a range of positive inclusion outcomes. For instance, Oh-Young and Filler (2015) found that inclusive education significantly enhances the academic achievement of students with special needs, largely facilitated by peer interactions. Social participation has also been recognized as a critical outcome, as demonstrated in the study by Koster et al. (2011), which highlighted the importance of positive social interactions between students with special needs and their typically developing peers. Despite these findings, much of the existing literature tends to prioritize the perspectives of parents and teachers, while the voices of students themselves remain largely underrepresented in research, policy, and practice (Kyttälä, Sinkkonen, & Harju-Autti, 2023). To address this gap, Kyttälä et al. (2023) proposed a framework for evaluating inclusion outcomes from the student perspective, comprising three key indicators: academic self-concept, social participation, and emotional well-being. These dimensions are closely associated with broader constructs such as school well-being, satisfaction with school, engagement in learning activities, and a sense of belonging—each of which is grounded in students' subjective experiences and represents a fundamental goal of inclusive education.

Despite the adoption of inclusive education in Indonesia since 2003, there remains a limited body of research that investigates the impact of inclusive teaching strategies and their outcomes, especially from the perspective of students. Existing studies predominantly emphasize the viewpoints of teachers and parents, leaving the student voice underrepresented in the discourse on inclusive education outcomes. However, the effectiveness of inclusive education should not be evaluated solely based on the physical placement of SEN students in



mainstream classrooms or their academic achievement. Equally important are the emotional and social dimensions, including the development of positive affect, a sense of belonging, and perceived acceptance by peers and teachers. To fill this gap, the present study offers a novel perspective by exploring inclusive education outcomes in Indonesia through the lens of students, employing a framework that encompasses academic self-concept, social participation, and emotional well-being.

Inclusive teaching strategies refer to pedagogies that seek to meet the needs of all learners regardless of background and support student engagement with the subject matter (Training & Dvd, n.d.). Molbaek (2018) stated that teaching practices in inclusive education need to be viewed as two closely related things because the choices made by teachers in the classroom have a major influence on learning outcomes as well as academic and social participation. In the context of an inclusive classroom with diverse student needs that must be involved, the choices made by teachers during the teaching process are very important to provide all students with the opportunity to participate in learning activities that are expected to be outcomes of inclusive education. In addition, inclusive teaching strategies require students to be able to work together in small groups and provide feedback according to their needs (Kurniawati, 2021). It can be said that teaching strategies play an important role in inclusive practices and their impact on educational outcomes (Alnahdi et al., 2022). With the growing trend of inclusive schools, it has become urgent to see how inclusive teaching strategies implemented by teachers influence the potential outcomes of inclusive education.

The outcome of inclusive education is not only assessed by placing students with special needs in regular classroom settings and the academic grades they get, but also from the emergence of positive emotions and feelings of acceptance felt by all students. Several studies have found that inclusive education brings positive outcomes, both for students with and without special needs (Kefallinou et al., 2020; Molina Roldán et al., 2021; Oh-Young & Filler, 2015). However, these impacts are widely perceived and assessed by teachers and parents. In fact, Kleeberg-Niepage et al. (2022) argued that the development of inclusive education requires an understanding from the perspective of those who experience it directly, in this case the students themselves. Kyttälä et al. (2023) stated that to measure the outcome of inclusive education, there are three indicators that need to be considered and assessed from the student's perspective. First, academic self-concept or the extent to which students' expectations of their academic abilities (Kyttälä et al., 2023). Second, social participation refers to the feeling of being accepted by friends and involved in school activities (Koster et al., 2011). Third, emotional well-being refers to students' ability to establish relationships with school stakeholders and enjoy and feel happy when they are at school (Kyttälä et al., 2023). These three concepts refer to connectedness and feelings of emotional, social, and academic involvement, which are the main goals of inclusive education.

This study focuses on the need to examine how students perceive the teaching strategies used by teachers and the impact of inclusion they feel. This urgency is supported by the lack of research in the Indonesian context regarding the teaching strategies used by teachers and their impacts from the students' perspective. Considering students' perspectives is critical in making meaningful policies (Mangiaracina et al., 2021). Student voices are also valuable in transforming schools by acting as co-creators to improve an increasingly inclusive learning environment (Venetz et al., 2019). Therefore, this study targets students from inclusive elementary schools in the DKI Jakarta, Bogor, Tangerang, Bekasi, and Depok areas. As the center of education and buffer areas, the five cities have implemented inclusive education, which is covered by the Decree of the National Minister no. 70 concerning



Inclusive Education Services and Regional Regulations. The region also has a history of designated inclusive model schools and exhibits variation in local regulatory implementation, making it suitable for assessing the transferability of findings to the national scale. The main question of this study is to review how students as major stakeholders perceive inclusive teaching practices carried out by teachers and how it correlates with students' academic self-concept, social participation, and emotional well-being.

Research Method

The research uses a descriptive quantitative method to test the influence of inclusive teaching practice perceptions on students' academic self-concept, social participation, and emotional well-being. Before the study began, the researcher submitted an ethical feasibility test to the Nusantara Scientific Psychology Consortium (Konsorsium Psikologi Ilmiah Nusantara) because it involved students as underage subjects. The results of the ethical test stated that this study could be carried out with controlled risks (No. 130/2024 Ethics / KPIN). The population in this study included all inclusive elementary school students (public or private) in Jakarta, Bogor, Depok, Tangerang, and Bekasi. The sampling technique used is cluster random sampling to take respondents from each region. The characteristics of respondents in this study include male or female students with and without special needs education, and are in grades 4, 5, or 6 of inclusive elementary schools, both public and private, with an age range of 10 to 12 years. Sampling began by tracing inclusive elementary schools in five regions (Jabodetabek). Inclusive schools in each region will be selected randomly with the number of schools in each region as many as 3 schools. There are 15 schools representing the population, with 339 students as respondents. Teachers filled out the informed consent form first as a form of agreement to be involved in the study and provide information related to the types of special needs of students. The demographics of the respondents are shown in Table 1. Of the total 339 respondents who filled out the questionnaire, they consisted of state inclusive schools with a total of 140 students (65% male) and private inclusive schools with a total of 199 students (53.8% male) with an average age of 10.4 years. Of the total respondents, 21 students (6%) were students with special needs. The number of students with special needs in private schools is greater than that in public schools. This is because the identification of children with special needs who enter private schools is clearer, compared to public schools. The types of special needs in this study included ADHD, autism, and slow learners. The number of children with special needs in each class is no more than 2 students. Not all schools, especially public schools, have shadow teacher facilities.

Table 1. Demographic Information

Demographic	Public School	%	Private School	%
<i>Sex</i>				
Male	65	46.4	107	53.8
Female	75	53.6	92	46.2
<i>Grade</i>				
4th grade	83	59.3	33	16.6
5th grade	26	18.6	87	43.7
6th grade	31	22.1	79	39.7
SEN Students	8	2.3	13	3.8



There are two measuring instruments used in this study. The first measuring instrument is the Perception of Inclusion (Grüter et al., 2023), which is used to measure inclusion outcomes from the student's perspective. The Perception of Inclusion measuring instrument is available in Indonesian via the website <https://piqinfo.ch/auswertung/>. Therefore, the researcher corresponded with the author to request permission to use the measuring instrument. This measuring instrument consists of 12 statements measured using a 4-point Likert scale (1 = very inappropriate, 4 = very appropriate). This instrument has three subscales. The first subscale, namely emotional well-being, consists of 4 statement items ($\alpha = .70$, for example: "I enjoy going to school"). The second subscale is social inclusion, which consists of 4 statement items ($\alpha = .66$, for example: "I easily make friends with my classmates"). The third subscale is academic self-concept ($\alpha = .66$, for example: "I do my schoolwork well"). The validity test using Pearson Product Moment with a significant value <0.05 resulted in all statement items being valid. The internal consistency of all items ($n = 12$) resulted in a Cronbach's alpha coefficient of 0.86.

The second measuring instrument is inclusive teaching strategies adapted from the research of Li, Gavaldà, and Badia (2022). The researcher adapted the original scale using a cultural adaptation from Beaton et al. (2000) consisting of forward and back translation. This scale consists of 29 statement items measured using a 4-point Likert scale (1 = strongly disagree, 4 = strongly agree). This second measuring instrument has three subscales: values and attitudes consisting of 6 items ($\alpha = .57$, for example "Teachers in my class treat everyone kindly"); the management and environment subscale consisting of 9 statement items ($\alpha = .60$, for example "I get support from psychologists, therapists, and assistant teachers in my class"); and the teaching and instruction subscale consisting of 14 statement items ($\alpha = .75$, for example "I can report my learning outcomes in many forms, such as presentations, reports, projects, and tests"). Validity testing using Pearson Product Moment with a significant value <0.05 resulted in 29 valid statement items from 29 statement items. The overall internal consistency of the items resulted in a Cronbach's alpha coefficient of 0.80.

The readability assessment was conducted using a sample of three students—both male and female—from grades 4 and 5 of elementary school. The results indicated that the statements contained in both instruments were comprehensible to the student participants, demonstrating an acceptable level of clarity and appropriateness for the target age group.

The quantitative data analysis in this study used inferential statistical techniques to explore the relationships between these variables and their respective dimensions. To address the research question regarding the influence of inclusive teaching strategies on educational outcomes—specifically, emotional well-being, social inclusion, and academic self-concept—Pearson Product-Moment correlation analyses were conducted to assess the relationships between the dimensions of teaching strategies and the dimensions of inclusive education outcomes. In addition, hierarchical regression analyses were performed on the teaching strategy subscales to identify which aspects exert the strongest influence on inclusive education outcomes. Residual normality was examined via the Normal P–P plot and formal tests; both were significant (Kolmogorov–Smirnov $D = .063$, $df = 339$, $p = .002$; Shapiro–Wilk $W = .988$, $df = 339$, $p = .007$), indicating a mild departure from normality in a large sample. Multicollinearity was acceptable: Values & Attitudes (Tolerance = .50, VIF = 2.03), Management & Environment (Tolerance = .54, VIF = 1.85), and Teaching & Instruction (Tolerance = .52, VIF = 1.93). The independence of errors was adequate (Durbin–Watson $d = 1.67$). The standardized residuals versus predicted values plot showed no funneling,



indicating homoscedasticity. All statistical analyses were performed using the Statistical Package for the Social Sciences (SPSS) version 23.0.

Results and Discussion

Descriptive statistical analyses, including the mean and standard deviation for both variables, are presented in Table 2.

Table 2. Descriptive Results

	Public School				Private School			
	Mean	SD	Min	Max	Mean	SD	Min	Max
<i>Perception of Inclusion</i>	41.4	3.9	24	48	37.7	5.6	21	48
Emotional Wellbeing	14.4	1.4	9	16	12.9	2.1	6	16
Social Inclusion	13.5	1.7	6	16	12.5	2.1	6	16
Academic Self concept	13.5	1.6	8	16	12.2	2.0	6	16
<i>Inclusive Teaching Strategies</i>	104.6	7.3	71	115	92.9	9.1	61	112
Values and Attitude	22.4	1.7	14	24	20.2	2.1	12	24
Management and the Environment	32.6	2.6	23	36	29.0	3.4	20	36
Teaching and Instruction	49.5	4.6	32	56	43.5	5.2	22	54

Table 2 shows that overall, students' perceptions of emotional well-being at school tended to be high, both in public schools (M = 41.4, SD 3.9) and private schools (M = 37.7, SD = 5.6). Students also rated the teaching strategies provided by teachers as high for public schools (M = 104.6, SD = 7.3) and private schools (M = 92.9, SD = 9.1). This means that the teaching strategies provided by teachers are considered inclusive by students, including the teacher's attitude in treating students in class, the arrangements that teachers implement are fair for all students, and the differentiation that teachers do to accommodate the needs of children with special needs. There were differences in the mean values of the two variables in terms of school type. Students from public schools reported higher inclusion outcomes than students in private schools, as well as for the teaching strategies used by teachers. In terms of subscales, the overall inclusive education outcome subscales were in the high range for both public and private schools. Subjective assessments of students' perceived emotional well-being for public schools were in the high category (M = 14.4, SD = 1.4), as well as for private schools (M = 12.9, SD = 2.1). Social engagement and the extent to which students made friends in public schools were in the high category (M = 13.5, SD = 1.7), as were students' social engagement in private schools (M = 12.5, SD = 2.1). Students' academic self-concept related to schoolwork was also rated high by both public school students (M = 13.5, SD = 1.6) and private school students (M = 12.2, M = 2.0). The teaching strategies subscale was also rated high overall based on the students' subjective views. Teachers' attitudes and values when teaching were rated inclusive by both public (M = 22.4, SD = 1.7) and private (M = 20.2, SD = 2.1) schools. In addition, the way teachers organize the classroom and learning environment is also considered inclusive by public school students (M = 32.6, SD = 2.6) and private school students (29.0, SD = 3.4). Furthermore, the way teachers teach and provide learning resources and instructions is also considered inclusive by public school students (M = 49.5, SD = 4.6) and private school students (M = 43.5, SD = 5.2).

To further explore the associations among the dimensions of perception of inclusion and inclusive teaching strategies, Pearson product-moment correlation analyses were conducted. The resulting correlation coefficients are summarized in Table 3.



Table 3. Correlation between the variables

	1	2	3	4	5	6	7	8
<i>Perception of Inclusion</i>		.89**	.87**	.87**	.63**	.60**	.54**	.54**
Emotional Wellbeing			.67**	.68**	.59**	.56**	.52**	.50**
Social Inclusion				.63**	.53**	.53**	.42**	.47**
Academic Self concept					.54**	.50**	.48**	.46**
<i>Inclusive Teaching Strategies</i>						.81**	.83**	.92**
Values and Attitude							.62**	.64**
Management and the Environment								.59**
Teaching and Instruction								

The inclusive education outcomes tested in this study refer to the dimensions of the perception of inclusion, namely, emotional wellbeing, social inclusion, and academic self-concept. These three dimensions are students' subjective perceptions of the inclusive education they receive and feel at school. The correlation test in the table above shows that the emotional wellbeing dimension is positively correlated with the social inclusion dimension ($r = .67, p < .05$) and academic self-concept ($r = .68, p < 0.5$). From these results, it can be said that respondents who highly assess the extent of emotional involvement in school—for example, enjoying being at school and having good friends—tended to highly assess positive social interactions and academic self-concept.

A correlation test was carried out on the inclusive teaching strategy variable. The inclusive teaching strategies variable captures students' subjective perspectives on the inclusive learning strategies that teachers apply in class, covering three dimensions, namely values and attitudes; management and environment, and teaching and instruction. The correlation results showed that the three dimensions were interrelated. The correlation test found that the teacher values and attitude dimension was positively correlated with the management and environment dimension ($r = .62, p < 0.5$), and teaching instruction ($r = .59, p < 0.5$). These results indicate that students who rated the more inclusive attitudes and values they perceived from their teachers tended to perceive the more inclusive classroom environment and instruction they perceived.

Table 3 shows the correlation between the dimensions of perception of inclusion and inclusive teaching strategies. The correlation test showed that the emotional wellbeing dimension was moderately correlated with the three dimensions of teaching strategies: values and attitude ($r = .56, p < 0.5$), management and environment ($r = .52, p < 0.5$), and teaching instruction ($r = .50, p < 0.5$). These results indicate that students who highly rated their emotional wellbeing at school and how they made friends also tended to highly rate the attitudes and values shown by teachers, classroom settings and inclusive teaching instructions. In another dimension, social inclusion was also correlated with values and attitude ($r = .53, p < 0.5$), management and environment ($r = .42, p < 0.5$), and teaching instruction ($r = .47, p < 0.5$). This shows that the higher the students' perceptions regarding the extent to which students are included and accepted socially, the more highly the students tended to rate the inclusive attitudes shown by teachers, as well as the classroom settings and teaching instructions they received. Finally, a positive correlation was also found between the academic self-concept variables with values and attitudes ($r = .50, p < 0.5$), management and environment ($r = .48, p < 0.5$) and teaching and instruction ($r = .46, p < 0.5$). These results indicate that students who highly value their ability to follow academic demands well at school tend to highly value the inclusive attitudes of teachers, management and the teaching



methods they feel. The next analysis uses stepwise regression to identify the subscales of teaching strategies that have the most influence on inclusive education outcomes. The testing of these subscales is based on Li who states that each subscale of teaching strategies is an independent concept. There are three subscales tested, namely values and attitudes; management and environment; and teaching and instruction. The results of the regression analysis are shown in Table 4 below.

Table 4. Regression Results

Variable	B	95%CI		SE B	β	R ²	ΔR
		LL	UL				
Step 1						.37	.37**
Constant	8.58**	4.27	12.8	2.19			
Values and attitude	1.45**	1.24	1.65	.10	.60**		
Step 2						.41	.04**
Constant	.18**	3.30	.01				
Constant	5.11**	.72	9.50	2.23			
Values and attitude	1.05**	.80	1.30	.12	.44**		
Management and the environment	.39**	.23	.54	.07	.26**		
Step 3						.43	.02**
Constant	4.11**	-.25	8.48	2.22			
Values and attitude	.85**	.57	1.12	.14	.35**		
Management and the environment	.30**	.14	.46	.08	.20**		
Teaching and instruction	.17**	.07	.27	.05	.18**		

Note. CI = confidence interval

Table 4 presents the hierarchical regression analysis examining the combined effects of the three subscales—values and attitudes, management and environment, and teaching and instruction—on students’ perceived inclusive education outcomes.

In Step 1, the values and attitude subscale was entered into the model, yielding an R² of .37. This indicates that teacher values and attitudes, as perceived by students, accounted for 37% of the variance in inclusive education outcomes, $F(1, 337) = 198.59, p < .01$. The results suggest that inclusive attitudes and values demonstrated by teachers significantly and positively predict students’ emotional well-being, social inclusion, and academic self-concept ($\beta = .60, p < .01$).

In Step 2, the inclusion of the management and environment subscale, alongside values and attitudes, increased R² to .41. This indicates that these two dimensions collectively explained 41% of the variance in perceived inclusive education outcomes, $F(2, 336) = 118.50, p < .01$. Both teacher values and attitudes ($\beta = .44, p < .01$) and the management of the learning environment ($\beta = .26, p < .01$) were found to be significant positive predictors of inclusive outcomes.

In Step 3, all three subscales—values and attitudes, management and environment, and teaching and instruction—were entered into the model, resulting in a further increase in R² to .43. This indicates that the full model accounted for 43% of the variance in inclusive education outcomes, $F(3, 335) = 84.96, p < .01$. The analysis revealed that each subscale remained a significant predictor: teacher values and attitudes ($\beta = .35, p < .01$), classroom management and environment ($\beta = .20, p < .01$), and inclusive teaching and instruction ($\beta = .18, p < .01$) all contributed positively to the inclusive education outcomes as perceived by students.



Overall, the results of this study illustrate that students in public and private inclusive schools reported a relatively high perception in assessing the impact of inclusive education, which in this study was measured through emotional well-being, social inclusion, and academic self-concept. Students' assessments of emotional well-being tended to be high. This means that students in both public and private schools considered themselves happy to be at school, have friends, and make positive friendships in class, including with students with special needs. Ralić (2023) argues that when students feel safe and happy at school, they tend to easily actualize their potential, including developing a positive attitude toward the teaching and learning process. feelings of safety and happiness at school. However, on the other hand, emotional well-being in students with special needs is the focus of experts, with studies showing that students with special needs tend to be vulnerable regarding peer acceptance in the school environment (Kyttälä et al., 2023). Similar results were also obtained from students' assessments of social inclusion, where students in public and private schools tended to rate it highly. Students' assessment of peer relationships and establishing friendships with all children is one indicator of the success of inclusive education. Studies have found that the social participation of students with special needs is also influenced by the role of teachers, for example involving students with special needs in group discussions (Paper, 2023). Finally, in terms of academic self-concept, students reported that their perception of their ability to complete assignments in inclusive classes was considered high. Students considered themselves able to do schoolwork well and could deal with academic matters that were considered difficult at school.

However, other studies have found that the academic self-concept of students with special needs tends to be lower. Research shows that in the context of inclusion, the academic self-concept possessed by students is closely related to the differentiated teaching provided by teachers (Alnahdi et al., 2022). On the other hand, the teacher's teaching strategies in inclusive classes also tend to get high scores. This perception includes students' subjective assessments of the inclusive values that teachers display in the classroom. The strategies used by teachers, for example, the extent to which teachers treat all students fairly and provide opportunities for all children to participate, reflect the inclusive values held by teachers and can ultimately be felt by students. A study conducted by Nzuza (2023) found that the inclusive values held by teachers are reflected in the differentiation of strategies chosen, as well as the flexibility of teaching methods. Teachers also understand that inclusive values can be practiced by understanding the differences and needs of students and allowing students to work in groups (Nzuza, 2023). Students' subjective assessments of classroom and environmental management carried out by teachers also tend to be high. This includes making classroom rules, working in groups, and the support provided by teachers to students who are experiencing difficulties. (Lutz et al., 2024) stated that the components of effective classroom management include maximizing learning time, organizing classroom activities, and choosing strategies for proactive behavior management. This is in line with the presentation of Liet al. (2022), who stated that classroom and environmental management includes the extent to which teachers regulate negative things that occur in the classroom, such as bullying and teasing behavior. The last teaching strategy that was also highly rated by students was giving instructions. Teaching strategies assessed by students included providing a variety of learning activities and materials, evaluating learning, and opportunities given to students to provide feedback on the work of their friends. Students also assessed that there were different instructions given by teachers for their friends with special needs, and allowed students to help each other with assignments.



This study also produced a correlation between the perception of inclusive education outcomes and the perception of teaching strategies carried out by teachers. The results of the study indicate that students' perceptions of inclusive outcomes are positively correlated with the perception of teachers' inclusive teaching at a moderate level. This can be interpreted that the higher the value given by students to the value of inclusion, classroom management, and instructions received from teachers, the higher the assessment of emotional well-being, social inclusion, and academic self-concept felt by students. This finding provides an illustration that the values of inclusion reflected in the teaching strategies provided by teachers are captured by students and influence their learning experiences. The results of the study (Furrer et al., 2020) show that teachers' teaching strategies that teach cooperative skills and norms are positively related to acceptance and social interaction in inclusive classes. In the dimensions of classroom management and environment, the results of this study are in line with the findings (Garrote et al., 2020) that effective classroom management has a positive impact on social acceptance, which is the main foundation for the successful implementation of inclusion. Finally, this study found that overall teaching strategies were significantly predictive of inclusive outcomes. Teacher values and attitudes, how teachers manage the classroom, and the instructions given contribute 43% of the variance to the perception of inclusion outcomes felt by students. If reviewed more specifically, teacher values and attitudes are the largest contributors (37%) to the extent to which students feel comfortable at school, are socially engaged, and have a positive academic self-concept. This finding also supports research that states that positive attitudes and values about inclusive education are a prerequisite or catalyst for the successful implementation of inclusive education, including the inclusion outcomes felt by students (Heyder et al., 2020). Positive attitudes and values about inclusiveness become the cornerstones that influence all teaching strategies carried out by teachers. When teachers have positive values and attitudes to meet the diverse needs of students in the classroom, this arises through inclusive teaching practices. From a social learning theory perspective, teachers who have positive attitudes and values towards students with special needs become role models for all their students. Students see and imitate the attitudes and values of teachers that are reflected in their behavior, and in turn will influence how students treat students with or without special needs (Heyder et al., 2020). These findings have implications for schools. With teacher attitudes and values being the biggest predictors influencing the perception of the success of inclusion, it is important for policy makers in public and private schools to ensure that teachers have positive values towards the implementation of inclusive education. Professional development should therefore concentrate on bias awareness and expectancy effects, inclusive language, and attribution to effort or strategy, delivered through short micro-modules, video-based reflection on classroom talk, and brief coaching conversations. To make belief change visible, schools can institute a one-page classroom language audit and incorporate an "Inclusive Mindset & Expectations" indicator into lesson observations and appraisal.

With inclusive education running in Indonesia for more than 20 years, the obstacles faced, especially the positive attitude that students with special needs have the same right to learn in their immediate environment, still require improvement efforts. On the other hand, this study produces a valuable perspective that is often forgotten in policy making: the student's perspective. In the teaching strategies perceived by students in inclusive classes, how teachers treat students with special needs and other students equally, teachers expect all students to try their best, and provide opportunities for students to assess each other and work together have an impact on feelings of happiness and positive emotional relationships



between students in inclusive classes. On the other hand, the assistance teachers provide to students who are having difficulties, how teachers organize the class, and diverse learning to accommodate students with special needs are also predictors of students' confidence in being able to complete academic tasks and positive academic self-concept. Therefore, to improve the quality of inclusive education in both public and private schools, ongoing professional training and development should be a concern. The government as a policymaker in public and private schools needs to intensively hold programs aimed at increasing student awareness and diversity to encourage the growth of more positive attitudes and values towards diversity. However, it does not stop at values and attitudes, practical strategies such as differentiated learning, understanding the Individual Learning Program, and supporting facilities and infrastructure can also be attempted by stakeholders as an effort to maximize the outcomes of inclusive education felt by all students.

Conclusion

This study analyzed students' perspectives on inclusive teaching strategies and outcomes in public and private elementary schools. Students from both public and private schools reported high inclusion outcomes and teaching strategies that included children with special needs in their classes. The results also found that teachers' attitudes and values reflected in inclusive teaching were the biggest predictors of students' perceptions of the benefits of inclusive education. The results also emphasized that the benefits felt by students when they were in a class with children with special needs and receiving teaching from teachers contributed to positive emotions that arose from interactions, feelings of being accepted and in a group, and confidence in their ability to do schoolwork. This was most influenced by teachers' attitudes and values that supported inclusion, which were ultimately reflected in the behavior and way teachers delivered teaching strategies. Therefore, the implications of this study focus on how teachers' role competencies are from students' perspectives. In addition to pedagogical skills and differentiated learning, this study emphasizes new competencies that arise from positive attitudes and values possessed by teachers: teachers' willingness to help and treat all students equally, establish a fair classroom setting, provide opportunities for all children to assess each other and work in groups, listen to ideas and convey expectations for students to try their best.

Recommendation

Given that Values & Attitudes alone accounted for 37% of the variance in student-perceived inclusion, the most defensible and cost-effective implication is to concentrate on cultivating teacher mindsets. Policy makers or school leaders can start with feasible steps: (1) strengthening an inclusive mindset through brief, context-relevant awareness modules; (2) structured peer support in the form of plan–observe–feedback collaboration using a short tool (e.g., inclusive language or expectation checklist); and (3) introducing low-cost instructional differentiation, such as offering choice in tasks and assessments and providing consistent formative feedback. School leaders should ensure protected time and recognition for these three steps, while monitoring remains light-touch through brief student feedback (emotional well-being, social inclusion, academic self-concept) and concise classroom observations.

This research is subject to several limitations that should be acknowledged. First, it did not examine variations in inclusive teaching strategies and educational outcomes across different regional contexts. Future research could address this gap by mapping profiles by specific districts or municipalities within the Greater Jakarta (Jabodetabek) area, thereby



offering insights into the influence of localized inclusive education policies and practices. Second, this study focused solely on student perceptions in assessing the impact of inclusive teaching strategies. Comparative analyses incorporating the perspectives of teachers and parents would enrich the understanding of inclusive outcomes from multiple stakeholder viewpoints. Additionally, future studies are encouraged to expand the geographic scope of the sample to encompass broader regions within Indonesia. Such efforts would contribute to a more comprehensive understanding of the implementation and perceived effectiveness of inclusive education at the national level.

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