A Comparative Study of Direct and Indirect Learning Strategies in Teaching Countable and Uncountable Nouns to Students of SMP Negeri Pauh

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Abstract

Mastery of grammar is a fundamental component of English language acquisition, particularly in understanding countable and uncountable nouns, which frequently pose challenges for junior high school students in producing grammatically accurate sentences. Students' difficulties in applying appropriate quantifiers, articles, and plural forms demonstrate that this grammatical area has not yet been comprehensively mastered. In response to this issue, the present study examined the effectiveness of direct and indirect learning strategies in enhancing students' comprehension of countable and uncountable nouns. Employing a quantitative, quasi-experimental design, the study involved two experimental groups of 30 students each. Data were gathered using pre- and post-test instruments and subsequently analyzed using statistical tests, tests of normality and homogeneity, and paired and independent-samples t-tests. The findings indicated that both groups demonstrated statistically significant improvement following the treatments, as reflected in increased mean scores and paired-sample t-test results with p-values below 0.05. Nevertheless, the independent-samples t-test revealed no statistically significant difference between the two instructional approaches, as the p-value exceeded 0.05, suggesting that both direct and indirect learning strategies were comparably effective in improving students' grammatical understanding. These results imply that integrating both approaches may enhance students' grammar mastery while also providing teachers with greater pedagogical flexibility in classroom instruction. Consequently, educators are recommended to implement a balanced combination of instructional strategies to achieve more optimal learning outcomes.

Keywords: Direct Learning Strategy, Indirect Learning Strategy, Grammar Mastery, Countable and Uncountable Nouns, Quasi-Experimental Design.

Introduction

Grammar mastery is a fundamental component of learning English as a foreign language, particularly for junior high school students who are still developing their understanding of basic linguistic structures. One important grammar topic is the use of countable and uncountable nouns. However, students frequently struggle to distinguish these nouns and to apply appropriate quantifiers such as *many, much, a few,* and *a little*. Errors in the

use of articles, plural forms, and quantifiers remain common in EFL classrooms (Alhaysony, 2020; Cai & Zhao, 2023). Further explain that limited grammatical understanding may negatively affect students' communicative competence. Therefore, improving students' mastery of countable and uncountable nouns is important for enhancing their overall English proficiency.

This problem is evident in various errors students frequently make, including incorrect use of articles (a/an), improper plural formation, and inappropriate use of quantifiers. These errors reflect a gap between the expected curriculum outcomes and students' actual language competence. According to Ellis (2015), errors in second language learning are often caused by an incomplete understanding of the language system and limited exposure to meaningful language use. Similarly, Lightbown and Spada (2021) argue that effective grammar instruction should integrate both rule-based knowledge and meaningful contextual practice. Recent research also suggests that grammar instruction focusing solely on rules is less effective in promoting actual language use (Askhatova, 2020). Thus, a more comprehensive instructional approach is needed to address these challenges.

In classroom practice, grammar instruction is still often teacher-centered, with rules explained directly and repetitive exercises. This approach is categorized as a direct learning strategy, which involves cognitive engagement with language through repetition, analysis, and structured practice (Oxford, 2013), Although direct strategies may improve grammatical accuracy, excessive reliance on such instruction can result in passive learning and limited student participation (Tahang et al., 2019). Consequently, students may encounter difficulties in applying grammar in meaningful communication. In contrast, indirect learning strategies, including metacognitive, social, and affective strategies, encourage students to actively manage their learning through planning, monitoring, evaluation, and collaboration. Studies by Febriyanti (2023) and Garita and Sánchez (2021) indicate that indirect strategies can improve learner autonomy, motivation, and confidence in language learning. Therefore, both direct and indirect learning strategies have potential advantages in grammar instruction.

Previous studies have demonstrated that learning strategies significantly influence English language learning outcomes (Brown, 2017; Nunan, 2023). However, most studies focus on broader language skills rather than specific grammar components. Research on teaching countable and uncountable nouns remains limited, particularly studies comparing direct and indirect learning strategies within the same research design. In addition, previous research often investigates these strategies separately without examining their comparative effectiveness in specific grammar instruction contexts. Experimental studies involving Indonesian junior high school students remain limited.

Therefore, several research gaps can be identified regarding instructional focus, strategic approach, and research context. Previous studies tend to examine learning strategies in general without linking them to specific grammar topics. Seng et al. (2023) found that students' learning strategies significantly influence overall language proficiency, yet their study did not focus on particular grammatical components. Similarly, Rao and Ibrahim (2025) classified language learning strategies into direct and indirect categories, but did not specifically investigate their application in teaching discrete grammar items such as countable and uncountable nouns. In addition, studies on direct and indirect learning strategies are often

conducted separately rather than in a comparative framework. Flavell (2020) examined cognitive and metacognitive strategies independently, whereas O'Malley et al. (2023) emphasized the effectiveness of strategy use in general language-learning contexts without directly comparing different types of strategies. Furthermore, experimental research among junior high school students in Indonesia remains limited. Although some local studies, such as those by Sorohiti et al. (2024), have explored grammar-teaching methods, they often focus on general approaches rather than on specific strategic comparisons. To address these gaps, this study is expected to provide stronger empirical evidence to support the development of effective grammar teaching strategies.

This study aims to address two major research concerns: whether there is a statistically significant difference in students' mastery of countable and uncountable nouns between those taught using direct and indirect learning strategies, and which instructional approach is more effective in strengthening grammatical skills. As a result, the study aims to analyze the efficacy of both tactics and find the instructional strategy that produces better learning outcomes among junior high school students. The findings are expected to contribute to English language teaching by enriching scholarly discussions of grammar instruction and learning strategies, and by providing educators with valuable insights into selecting and implementing effective pedagogical approaches for grammar instruction.

Method

Design of the Study

This work used a quantitative research methodology with a quasi-experimental design, specifically a non-equivalent control group (Sugiyono, 2021; Fraenkel et al., 2014). This design was chosen because participants could not be randomly assigned to experimental and control groups; however, it is still suitable for investigating and comparing the effects of different instructional treatments administered to separate groups. This approach allowed the researcher to assess the relative effectiveness of the applied learning strategies in impacting students' learning results. The framework of the research design is shown below:

Table 1. Design and Methodological Approach

Group	Pre-test	Treatment	Post-test
Experimental Group 1	O1	X1	O2
Experimental Group 2	O1	X2	O2

Notes: X1 = Direct Learning Strategies; X2 = Indirect Learning Strategies

Participants and Setting

The research was conducted at SMP Negeri Pauh, with all eighth-grade students as the target population. To determine the participants, the study used a purposive sampling technique, selecting subjects based on predetermined criteria, particularly the similarity of students' preliminary academic abilities. The selected participants were subsequently assigned to two experimental groups. Class A, comprising 30 students, served as Experimental Group 1, while Class B, also comprising 30 students, served as Experimental Group 2. Consequently, the total number of participants in the research was 60 students.

Research Instruments

Grammar Test (Pre and Post-test)

The primary instrument used in this research was a grammar assessment administered as a pre- and post-test to evaluate students' comprehension and mastery of countable and uncountable nouns. The test included multiple-choice items, error-correction tasks, and sentence-completion tasks. It consisted of approximately 25–30 items designed to assess both recognition and production of grammatical forms.

Table 2. Score Classification

Score Range	Category
86 – 100	Very Good
71 – 85	Good
56 – 70	Fair
41 – 55	Poor
≤ 40	Very Poor

Sources: (Brown & Abeywickrama, 2019)

Reliability and Validity Analysis

Instrument validity was assessed using Pearson's product-moment correlation in IBM SPSS Statistics to determine whether each test item accurately represented and measured the desired construct. Furthermore, Cronbach's Alpha was used to assess item reliability; values of 0.70 or higher indicated satisfactory reliability.

Treatment Procedures

a. Experimental Group 1 (Direct Strategies)
   1) Grammar Explanation
      The teacher explicitly explained the rules for countable and uncountable nouns, including their characteristics and the appropriate use of quantifiers.
   2) Structured Practice (Drilling)
      Students completed structured exercises to practice identifying and using the grammatical forms through repetition.
   3) Use of Worksheets
      Worksheets were used to provide guided practice through multiple-choice, sentence-completion, and error-correction tasks.

b. Experimental Group 2 (Indirect Strategies)
   1) Group Discussion
      Students worked in groups to discuss and identify the use of countable and uncountable nouns.
   2) Self-Monitoring (Metacognitive Reflection)
      Students evaluated their own understanding by checking and reflecting on their answers.
   3) Peer Correction

Students reviewed and corrected each other's work to improve understanding through collaboration.

Techniques of Data Collection

The data collection process for this study was divided into three stages: the initial test, the therapy phase, and the final test. The pre-test was used to identify and evaluate students' prior grasp of countable and uncountable nouns. The treatment phase involved implementing direct and indirect learning procedures in two independent experimental groups over multiple instructional sessions. The study's goal was to assess students' achievement after the treatments.

Data Analysis Techniques

The data analysis in this study used several statistical procedures. First, descriptive statistics were used to summarize the data and provide an overview of students' performance. Second, a normality test was conducted to determine whether the data were normally distributed, as required for parametric analysis. Third, a homogeneity test was performed to assess whether the variances across groups were equal. Finally, hypothesis testing was conducted using both an independent-samples t-test and a paired-samples t-test. The independent-samples t-test was used to compare the two groups, while the paired-samples t-test was used to analyze differences between pre-test and post-test results within each group. All analyses were conducted using SPSS at the 0.05 significance level.

Results and Discussion

Result

Statistical Analysis

Descriptive statistics were used to summarize students' performance in both groups before and after treatment. This study was utilized to compare pre-test and post-test findings, highlight improvements in each group, and examine overall patterns of learning outcomes after the instructional tactics were implemented.

Table 3. Descriptive Statistics of Pre and Post-test

Group	Test	N	Minimum	Maximum	Mean	Std. Deviation
Experimental Group 1	Pretest	30	37	63	48,00	7,692
	Posttest	30	73	96	81,43	6,021
Experimental Group 2	Pretest	30	37	63	47,77	7,947
	Posttest	30	76	96	83,47	5,015
	Valid N (listwise)	30				

Table 3 shows that both groups improved after the treatment. In Experimental Group 1, the mean score increased from 48.00 to 81.43, while in Experimental Group 2 it rose from 47.77 to 83.47. The standard deviation decreased in both groups, indicating more consistent performance. Based on score classification, both groups moved from Poor in the pre-test to Good in the post-test. Overall, both instructional strategies were effective, with the indirect strategy showing a slightly greater improvement in mean score.

Assessment of data Normality

This test was chosen because it is deemed acceptable and reliable for sample sizes ranging from small to moderate. The analysis was performed on both pre-test and post-test scores from each experimental group. The significance value (Sig.) was used to analyze the test results; values greater than 0.05 indicated normality, and values less than 0.05 indicated deviation from normality.

Table 4. Normality Test Results (Experimental Group 1)

One-Sample Kolmogorov-Smirnov Test

		Experimental Group 1	Experimental Group 2
N		30	30
Normal Parameters[a,b]	Mean	,0000000	,0000000
	Std. Deviation	3,65583724	3,65583724
Most Extreme Differences	Absolute	,139	,139
	Positive	,139	,139
	Negative	-,085	-,085
Test Statistic		,141	,139
Asymp. Sig. (2-tailed)		,134[c]	,145[c]

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

Table 4 shows the normality test results for. This is supported by the Asymp. Sig. values of 0.134 for Experimental Group 1 and 0.145 for Experimental Group 2, which both exceed the 0.05 level of significance. As a consequence, the assumption of normality is met, indicating that parametric statistical methods are applicable to this investigation.

Homogeneity Test

Levene's Test was used to assess variance homogeneity, to determine whether the variances of the two experimental groups were equivalent. This approach is critical because it is a fundamental assumption underlying the independent-samples t-test.

Table 5. Assessment of Homogeneity of Variance Outcomes

Post-test

Levene Statistic	df1	df2	Sig.
1,332	1	58	,253

The homogeneity test results in Table 5 have a significance value (Sig.) of 0.253. Finding that two are statistically equivalent indicates homogeneity. As a result, the requirement for equal variances is met, allowing us to proceed with the following investigation.

Hypothesis Testing

This test examines whether there is a statistically significant difference in learning outcomes between students taught using direct and indirect learning methodologies. The outcome is evaluated using the significance value (Sig.), which is less than 0.05.

Table 6. Independent Sample t-test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Posttest	Equal variances assumed	1,332	,253	-1,421	58	,161	-2,033	1,431	-4,897	,831
	Equal variances not assumed			-1,421	56,165	,161	-2,033	1,431	-4,899	,833

Table 6 shows a Sig. (2-tailed) value of 0.161, which exceeds the 0.05 alpha limit. The data indicate no significant difference in post-test performance between Experimental Group 1 and Experimental Group 2. Therefore, the null hypothesis (H_0) cannot be rejected. Overall, despite clear gains in both groups, the difference in mean scores is not statistically significant.

This is a study of countable and uncountable nouns. The results are evaluated using the significance value (Sig.), which is less than 0.05.

Table 7. Paired Sample t-test Results

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Exp 1	Pretest - Posttest	-33,433	6,404	1,169	-35,825	-31,042	-28,594	29	,000
Exp 2	Pretest - Posttest	-35,700	5,808	1,060	-37,869	-33,531	-33,666	29	,000

Table 7 shows that both groups experienced significant improvement after the treatment. The significance value of 0.000 in both groups indicates a statistically significant difference between pre-test and post-test scores. The negative mean differences (−33.433 and −35.700) show that post-test scores were higher than pre-test scores. Overall, both direct and indirect learning strategies effectively improved students' understanding of countable and uncountable nouns.

Discussion

The findings of this study indicate that both direct and indirect learning strategies significantly improved students' understanding of *countable and uncountable nouns*. Based on

the descriptive statistics, both experimental groups showed substantial increases in their mean scores from pre-test to post-test, which suggests that the instructional treatments were effective in enhancing students' grammatical competence. This result aligns with Lubis's (2024) view that systematic grammar instruction plays an important role in improving learners' accuracy and language performance. Additionally, the decrease in standard deviation in both groups indicates more consistent learning outcomes, suggesting that the strategies helped reduce performance gaps among students.

In addition, the results of the normality and homogeneity tests indicated that all underlying assumptions for parametric analysis were satisfied, thereby supporting the validity of the subsequent statistical procedures. The findings from the independent-samples t-test showed no statistically significant difference between the two groups (Sig. = 0.161 > 0.05), suggesting that both direct and indirect instructional strategies are equally effective in enhancing students' grammar mastery. This finding supports the argument of Pujiati and Tamela (2019), who emphasize that both direct (cognitive and memory-based) and indirect (metacognitive and social) strategies can contribute positively to language learning, depending on how they are implemented in the classroom.

However, the results of the paired-samples t-test revealed that both groups showed a statistically significant improvement following the treatment (Sig. = 0.000 < 0.05), indicating that the instructional interventions had a substantial positive effect on students' learning outcomes. This is consistent with Ghafar's (2023) findings, which highlight that both teacher-centered and student-centered approaches can effectively enhance learners' understanding when applied appropriately. In particular, the improvement observed in the indirect strategy group suggests that collaborative learning and reflective practices can foster deeper comprehension, as also noted by Alzubi et al. (2024), who argue that meaningful interaction and learner engagement are key factors in second language acquisition.

Overall, the results suggest that while no single strategy is significantly superior, both direct and indirect learning strategies play complementary roles in grammar instruction. Direct strategies help students understand rules explicitly and improve accuracy, whereas indirect strategies promote learner autonomy, interaction, and deeper cognitive processing. Therefore, integrating both approaches in classroom practice may provide more optimal learning outcomes, as supported by recent studies emphasizing the importance of balanced instructional strategies in language teaching.

Conclusion

This study concludes that both direct and indirect learning strategies significantly enhance students' understanding of countable and uncountable nouns, as demonstrated by the notable increase in post-test scores across both experimental groups. Conceptually, these findings suggest that successful grammar learning is not determined solely by the type of instructional strategy used, but also by how the learning process encourages students to actively engage with grammatical concepts. Direct learning strategies support students through explicit explanation and structured practice, while indirect learning strategies promote learner autonomy, interaction, and reflective learning. Both approaches provide different pathways that contribute to students' grammatical understanding and language development. Therefore,

grammar instruction can be effectively delivered through different pedagogical approaches as long as they are implemented systematically and appropriately.

The findings of this study emphasize the importance of integrating both direct and indirect learning strategies into classroom instruction to provide a balanced approach that meets the needs of diverse learners. Educators should combine explicit instruction with interactive, learner-centered activities to improve students' learning outcomes. confined, limited, narrow grammar. Thus, future research is recommended to use larger participant groups, extend the intervention period, and include additional variables, such as motivation, learning styles, and technological integration, to yield deeper linguistic insights.

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