

Original Article

Perceived Implementation of Reinforcement Strategies and Academic Performance of Intermediate Pupils in Lutayan District II

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Abstract

This study examined the implementation of reinforcement strategies (verbal praise, rewards and incentives, and corrective feedback) as rated by pupils, teachers, and school heads, and the relationship between pupils' perceived exposure to these strategies and the academic performance of intermediate pupils in Lutayan District II. A descriptive–correlational design was used with 139 respondents: 92 pupils, 37 teachers, and 10 school heads. Data were gathered through a researcher-made questionnaire and analyzed using weighted mean, standard deviation, and Pearson *r*. Academic performance was measured through the pupils' third-quarter grades. Stakeholders rated reinforcement strategies as fully implemented, with verbal praise rated highest, and pupils' academic performance was very satisfactory (mean grade = 88.08). Using the 92 pupils as the unit of analysis, pupils' perceived exposure to reinforcement strategies had a significant but weak positive relationship with academic performance ($r = 0.36$, $p = .0004$), an association that does not establish causation. The correlation reflects pupils' perceptions rather than the actual implementation reported by teachers or school heads. Teachers reported moderate challenges, mainly limited instructional materials and resources. The study recommends sustaining reinforcement practices and providing adequate materials and teacher support.

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1. Introduction

Education plays a significant role in shaping learners' knowledge, skills, attitudes, and overall development. In elementary education, teachers use various instructional approaches to improve pupils' academic performance and foster positive learning behaviors. Among these approaches, reinforcement strategies are widely recognized as effective classroom practices that motivate learners to participate actively and develop productive study habits. Reinforcement strategies include verbal praise, rewards and incentives, and corrective feedback, all of which are intended to strengthen desirable academic behaviors and sustain learners' motivation. Grounded in B. F. Skinner's (1938) operant conditioning theory, these strategies rest on the principle that behaviors followed by positive consequences are more likely to be repeated, which explains how praise, rewards, and corrective feedback can strengthen desirable learning behaviors. In the intermediate grades, these strategies are particularly important because pupils are expected to become more independent, responsible, and engaged in their learning process. Furthermore, the use of reinforcement strategies supports Sustainable Development Goal 4 (Quality Education), which emphasizes inclusive and equitable quality education for all learners.

Implementing reinforcement strategies requires the participation of key educational stakeholders. Teachers serve as the primary implementers of reinforcement practices inside the classroom, while school heads provide supervision and support to ensure that these strategies are applied consistently and effectively. Intermediate pupils, as the direct recipients of reinforcement, also provide important insights regarding how these strategies influence their motivation, participation, and academic achievement. Several studies have emphasized the positive effects of reinforcement strategies on student learning outcomes. Viray-Castillejos (2022) reported that teachers perceived reward systems as effective in increasing pupils' participation and academic performance, while Caldarella et al. (2020) found that higher teacher praise-to-reprimand ratios were associated with greater on-task behavior among elementary pupils. These findings suggest that reinforcement strategies contribute to a more supportive and productive classroom environment.

Despite the recognized benefits of reinforcement strategies, many learners continue to struggle to achieve consistent academic success. Some pupils demonstrate low motivation, poor participation, and limited engagement in classroom activities. In

some cases, reinforcement strategies are not implemented consistently, or the strategies used may not align with learners' individual needs.

Moreover, challenges such as limited instructional resources, overcrowded classrooms, and time constraints may affect teachers' ability to apply reinforcement effectively. Existing studies mainly focused on the general effects of reinforcement strategies on student behavior and motivation; however, limited research has examined how intermediate stakeholders perceive the implementation of these strategies in relation to academic performance within the local context of Lutayan District II.

The local context makes this gap more pressing. The MATATAG Curriculum is the Department of Education's (2024) revised and decongested curriculum for Kindergarten to Grade 10, which emphasizes foundational literacy, numeracy, and socio-emotional skills and is being introduced in phases. In School Year 2025–2026, Grades 4 and 5 implemented it while Grade 6 remained under the K to 12 curriculum, so teachers of intermediate pupils in Lutayan District II were working across two curricula at once, and possibly with constraints in instructional materials, class size, and time. Without local evidence on how reinforcement strategies are implemented in these classrooms and whether pupils' perceptions of these strategies are related to their academic performance, school heads and teachers in the district have little basis for deciding where to strengthen classroom practice. This is why the district requires the present study.

This gap in the literature highlights the need to investigate the implementation of reinforcement strategies and their relationship to the academic performance of intermediate pupils. Specifically, this study focused on verbal praise, rewards and incentives, and corrective feedback as perceived by intermediate pupils, teachers, and school heads. The study sought to determine the extent of implementation of these strategies, identify the challenges encountered in their application, and examine whether a significant relationship exists between pupils' perceived exposure to reinforcement strategies and learners' academic performance. Implementation was described from the perspectives of all three respondent groups, whereas the relationship with academic performance was tested using pupils' perceptions only, because only pupils had individual grades.

The findings of this study are expected to contribute to improving classroom practices and instructional strategies in elementary education. By identifying effective reinforcement practices and the challenges encountered in their implementation, the study may help teachers strengthen learner motivation and engagement, assist school heads in developing supportive policies and programs, and provide future researchers with relevant local data related to reinforcement strategies and academic achievement. Ultimately, the study aims to support the development of a more positive, motivating, and effective learning environment for intermediate pupils.

2. Methodology

This study employed a quantitative approach using a descriptive–correlational research design. The descriptive method was used to determine the level of implementation of reinforcement strategies in terms of verbal praise, rewards and incentives, and corrective feedback as perceived by stakeholders. The correlational method was applied to determine the significant relationship between pupils' perceived exposure to reinforcement strategies and the academic performance of intermediate pupils.

The study was conducted in ten selected elementary schools in Lutayan District II, Sultan Kudarat, during School Year 2025–2026. The chosen design was appropriate because it enabled the researcher to gather measurable data and analyze the relationship between the identified variables without manipulating the natural classroom setting.

The district comprises schools with diverse learner populations and educational settings, making it well-suited to examining the implementation of reinforcement strategies among intermediate pupils. The selected schools served as the setting for data collection from intermediate pupils, teachers, and school heads on the use of reinforcement strategies and their influence on academic performance.

The study respondents comprised intermediate stakeholders, specifically intermediate pupils, intermediate teachers, and school heads from the ten selected schools within Lutayan District II. Intermediate pupils included learners from Grades 4, 5, and 6. The 92 intermediate pupils were selected from a total pupil population of 1,178. The sample size was determined using Slovin's formula, $n = N / (1 + Ne^2)$, at a 10% margin of error ($e = 0.10$), which gives $n = 1,178 / [1 + 1,178(0.10)^2] = 92.17$, or 92 pupils, and the sample was then drawn using stratified proportional allocation. In addition, all 37 intermediate teachers and 10 school heads from the selected schools were included through total enumeration. The final sample therefore comprised 139 respondents: 92 pupils, 37 teachers, and 10 school heads. The intermediate pupils served as the primary respondents because they were directly involved in and affected by the implementation of reinforcement strategies in the classroom, while the teachers and school heads provided perspectives on instructional practices and school-level implementation. These groups were considered appropriate respondents because they represent key stakeholders at the intermediate level, enabling a comprehensive examination of reinforcement strategies in relation to learners' academic performance.

The primary instrument was a researcher-made, structured survey questionnaire that measured the level of implementation of reinforcement strategies as perceived by intermediate pupils, intermediate teachers, and school heads. The questionnaire was based on the relevant literature and focused on the study's key variables: verbal praise, rewards and incentives, and corrective feedback. To determine the level of implementation, a Level of Implementation Likert Scale was used with the following descriptors: 5 – Fully Implemented, 4 – Highly Implemented, 3 – Moderately Implemented, 2 – Slightly Implemented, and 1 – Not Implemented.

The questionnaire consisted of structured, closed-ended items organized according to the reinforcement-strategy variables. Each item measured the frequency and consistency with which these strategies were used in the teaching-learning process. The instrument was designed to be general and applicable to all stakeholders, so that pupils, teachers, and school heads could respond based on their own experiences and perceptions. The version for teachers and school heads, however, included an additional Part II that identified the challenges they encountered in implementing reinforcement strategies in their classrooms.

The validity test results yielded a mean score of 4.98, which was interpreted as very highly valid. This indicated that the research instrument was highly appropriate, accurate, and effective in measuring the intended variables, ensuring that the data collected were reliable and suitable for addressing the study's problem statement. The pilot testing results indicated that the instrument demonstrated excellent reliability, with a Cronbach's Alpha of 0.9022, reflecting strong internal consistency among the 23 items and its suitability for data collection.

To avoid ambiguity, two uses of the reinforcement-strategy ratings are distinguished in this study. First, the level of implementation of reinforcement strategies was described using ratings from pupils, teachers, and school heads, each as perceived by that group (Table 1). Second, the reinforcement variable in the correlation was pupils' perceived exposure to reinforcement strategies, defined as each pupil's mean rating on the reinforcement-strategy items; this measures how much reinforcement the pupil perceives receiving, not how teachers actually implemented it. Academic performance, the other variable, was defined as the pupil's third-quarter general average.

Weighted mean and standard deviation were used to describe the level of implementation of reinforcement strategies and the challenges encountered, while pupils' academic performance was described using their third-quarter grades. Pearson product-moment correlation was used to test the relationship between pupils' perceived exposure to reinforcement strategies and academic performance. The unit of analysis for this test was the individual pupil ($n = 92$): each pupil's mean rating on the reinforcement-strategy items was paired with that same pupil's third-quarter general average. The ratings of teachers ($n = 37$) and school heads ($n = 10$) were used only to describe the level of implementation and the challenges encountered, and they were not paired with pupil grades. Consequently, the correlation does not measure the actual implementation of reinforcement strategies by teachers. The significance of r was tested with $t = r\sqrt{(n - 2) / (1 - r^2)}$, using $n - 2$ degrees of freedom and a two-tailed critical value at $\alpha = .05$.

3. Results

Table 1. Level of implementation of reinforcement strategies in Lutayan District II as perceived by the stakeholders.

Variables	Mean	SD	Interpretation
Verbal Praise	4.62	0.50	Fully Implemented
Rewards and Incentives	4.49	0.59	Fully Implemented
Corrective Feedback	4.26	0.80	Fully Implemented
Overall	4.45	0.15	Fully Implemented

As shown in Table 1, the pupils, teachers, and school heads perceived that reinforcement strategies were fully implemented across all three areas. Verbal praise was the most consistently used strategy, indicating that positive words and encouragement are a regular part of classroom interaction. Rewards and incentives were also used extensively to motivate pupils. Corrective feedback was the least emphasized of the three but was still fully implemented, suggesting that teachers routinely provide guidance and corrections to help pupils improve. Taken together, the results show that reinforcement strategies are a well-established part of the teaching-learning process in the district.

Table 2. Academic performance of intermediate pupils in 3rd quarter grades.

Variables	Mean	SD	Interpretation
Verbal Praise	4.62	0.50	Fully Implemented
Rewards and Incentives	4.49	0.59	Fully Implemented
Corrective Feedback	4.26	0.80	Fully Implemented
Overall	4.45	0.15	Fully Implemented

As shown in Table 2, most pupils obtained grades in the Outstanding and Very Satisfactory ranges, and only a few fell in the Fairly Satisfactory range. The mean grade of 88.08 places the pupils' overall academic performance at the Very Satisfactory level (Department of Education, 2015).

The academic performance of learners, as reflected in their general average, was a key indicator of educational success at the elementary level. The general average represented the overall academic standing of pupils across subject areas and provided a comprehensive measure of their mastery of essential knowledge, skills, and competencies.

Examining the academic performance of intermediate pupils, based on their general average, was essential for determining the effectiveness of curricular implementation. The results helped identify learners' strengths and areas for improvement, thereby guiding teachers and stakeholders in designing appropriate interventions and instructional strategies to enhance academic achievement further.

Table 3. Correlation analysis between pupils' perceived exposure to reinforcement strategies and academic performance (n = 92 pupils).

Variables	r	t-computed	Tcritical @5%	Interpretation	Decision
Implementation of reinforcement strategies and performance	.36	3.66	1.99	Weak positive correlation	Reject Ho

*Significant at $\alpha = .05$ (two-tailed); n = 92, df = 90, p = .0004 $r^2 = .1296$

Table 3 shows a significant but weak positive relationship between pupils' perceived exposure to reinforcement strategies and pupils' academic performance, so the null hypothesis was rejected. The correlation was computed for the 92 pupils, pairing each pupil's mean rating of reinforcement strategies with that pupil's third-quarter general average; the test therefore used 90 degrees of freedom and a two-tailed critical value at the .05 level, and the exact probability is given in the table note. The coefficient of determination indicates that pupils' perceived reinforcement strategies account for roughly 13% of the variance in academic performance, leaving most of the variation to other factors. Because the design is correlational, the result shows association only and does not establish that reinforcement causes higher grades. The reinforcement variable in this test is pupils' perceived exposure to reinforcement strategies, not the actual implementation reported by teachers or school heads, whose ratings (n = 37 and n = 10) could not be paired with individual pupils' grades and were therefore excluded from the correlation.

Table 4. Mean distribution level of challenges encountered in implementing the reinforcement strategies as perceived by intermediate teachers and school heads.

Item	Indicators	Mean N=47	SD	Interpretation
1.	It is difficult to consistently apply reinforcement strategies due to limited class time.	2.69	0.74	Moderately Challenging
2.	Managing lesson delivery and reinforcement at the same time is challenging for me.	2.65	0.80	Moderately Challenging
3.	Providing individual reinforcement to all pupils is difficult due to a large number of students.	2.46	0.81	Slightly Challenging
4.	I prioritize completing lesson content over giving reinforcement.	2.54	0.86	Moderately Challenging
5.	Time pressure prevents me from consistently applying reinforcement strategies	2.54	0.99	Moderately Challenging
6.	Lack of instructional materials affects my use of reinforcement strategies.	2.65	0.69	Moderately Challenging
7.	Managing reinforcement strategies is harder in overcrowded classrooms.	2.69	0.79	Moderately Challenging
8.	Insufficient school resources limit the effectiveness of reinforcement.	2.81	0.85	Moderately Challenging
9.	I rely mainly on verbal reinforcement due to limited materials.	2.81	0.94	Moderately Challenging
10.	Availability of reinforcement materials influences how often I apply them.	2.73	0.83	Moderately Challenging
Section Mean		2.66	0.83	Moderately Challenging

Table 4 shows that teachers experienced moderate challenges with instructional materials, resources, and time when implementing reinforcement strategies. The most common challenges were insufficient school resources and reliance on verbal reinforcement because of limited materials. Teachers also noted that the availability of reinforcement materials affected how often they applied the strategies, and that overcrowded classrooms made reinforcement more difficult to manage. Providing individual reinforcement to pupils was considered only slightly challenging. Overall, limited resources and support appear to constrain how well reinforcement strategies can be implemented in the classroom.

4. Discussion

The findings in Table 1 indicate that reinforcement strategies are firmly established in the intermediate classrooms of Lutayan District II. The strong showing of verbal praise suggests that teachers turn first to the most accessible reinforcement, since praise requires no materials and can be given at any point in a lesson. This aligns with Zhang et al. (2021), who found that teachers frequently use verbal praise to motivate pupils and maintain classroom order, and with Caldarella et al. (2020), who reported that more teacher praise than reprimands was associated with greater on-task behavior among elementary pupils. Hopkinson (2022) likewise examined how teachers' verbal praise and feedback influence students' self-concept and self-efficacy beliefs. These practices reflect the operant conditioning principle introduced earlier, in which positive consequences make desirable learning behaviors more likely to recur. Rewards and incentives, which usually depend on available materials, were also fully implemented, suggesting that teachers maintained them despite the resource limits discussed below. Corrective feedback received the least emphasis, which may mean that teachers give more attention to affirming pupils than to correcting them, or that timely and individual correction is harder to provide in large classes. The timing matters because Li (2020) discussed two studies that both showed an advantage for immediate over delayed corrective feedback.

Pupils' Very Satisfactory performance, shown in Table 2, indicates that most learners are meeting curriculum expectations under both the K to 12 and MATATAG curricula, since most grades fall at or above the Very Satisfactory descriptor set by the Department of Education (2015). Grades, however, reflect many influences besides classroom reinforcement, such as the quality of instruction, support at home, and pupils' prior learning, so this result describes the general level of achievement rather than the effect of any single practice. Related studies on corrective feedback, which concern language learning and therefore apply only indirectly here, point in a similar direction. Maslucha et al. (2024) described corrective feedback as a focal point for improving language development and shaping students' attitudes. Karim and Nassaji (2019) noted that, although the effectiveness of written corrective feedback has been debated, many researchers stress its importance for learning.

The weak but significant relationship in Table 3 suggests that pupils who perceive greater reinforcement in their classrooms tend to have somewhat higher grades, yet reinforcement accounts for only a small share of the differences in achievement. Instructional quality, learning resources, family support, and pupils' own motivation likely account for most of the rest. Because the study is correlational, the direction of the relationship cannot be determined: reinforcement may raise engagement and grades, or teachers may reinforce high-achieving pupils more often. The result should also be read in light of its basis: only the 92 pupils had both a perception score and a grade, so it reflects pupils' perceived exposure to reinforcement and does not show how actual classroom implementation, or teachers' and school heads' ratings, relate to pupils' achievement. The literature supports this cautious reading. Viray-Castillejos (2022) reported that teachers perceived reward systems as effective in increasing pupils' participation and academic performance, and Balu and Ehrlich (2018), writing about attendance incentives, noted that incentives work best when they are designed to fit the specific problem they are meant to address. Rahimi et al. (2021), studying an educational physics game, found that an incentive system changed how students used learning supports, with much of its link to learning running indirectly through game performance. Together, these studies suggest that reinforcement is more likely to influence learning through engagement and task performance than to raise grades directly, consistent with the modest correlation observed here.

The moderate level of challenge in Table 4 suggests that the quality and consistency of reinforcement depend on classroom conditions as much as on teachers' intentions. Reliance on verbal reinforcement due to limited materials and the difficulty of managing reinforcement in crowded classes suggests that teachers substitute low-cost strategies when resources are scarce. Time pressure and the priority placed on covering lesson content also compete with reinforcement, which can make it less individualized and less consistent. This pattern fits the literature. Zhang et al. (2021) reported that verbal praise can have both shallow and deep effects and that other conditions are needed for deeper effects to occur, and Drake and Nelson (2021) found that teachers' rates of praise varied widely across observed classrooms, with general praise used more often than behavior-specific praise. Together, these findings imply that implementing reinforcement fully is not the same as implementing it well, and that resources and classroom conditions shape how well it works.

5. Conclusion

The study found that pupils, teachers, and school heads perceive reinforcement strategies as fully implemented in the intermediate classrooms of Lutayan District II, that pupils' academic performance is very satisfactory, and that pupils' perceived exposure to reinforcement strategies and academic performance are positively but weakly related. The broader implication of this modest correlation is that classroom

reinforcement, as perceived by pupils, is a worthwhile but limited influence: it is associated with better achievement, yet it accounts for only a small share of the variation in grades, so it cannot replace sound instruction, adequate learning resources, and supportive home and school conditions. Because the design is correlational, the findings show association rather than causation, and they rest on pupils' perceptions rather than on observed or teacher-reported implementation; reinforcement is best viewed as one component of a wider effort to raise achievement, especially in classrooms where limited materials, crowding, and time constraints weaken consistent implementation.

6. Recommendations

Based on the findings, teachers may continue using verbal praise, rewards and incentives, and corrective feedback, and give closer attention to timely and specific corrective feedback, which received the lowest implementation rating. School heads and the schools division may provide reinforcement materials and other instructional resources, manage class size where feasible, and offer professional development on delivering reinforcement within limited time and materials. Because reinforcement is only one factor related to achievement, schools may pair it with other instructional and learner-support strategies. Future researchers may examine other factors related to academic performance, such as parental involvement, teaching methods, classroom environment, and learner motivation, and may use experimental, longitudinal, qualitative, or mixed-method designs to test whether reinforcement improves achievement and to explore the experiences of teachers and pupils. Future correlational studies should also pair each respondent's perception scores with that respondent's own performance data, clearly state the unit of analysis, and link teacher-reported or observed implementation to the grades of the pupils each teacher handles to examine how actual implementation relates to achievement.

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Conflict of Interest Statement

The authors have no relevant financial or non-financial interests to disclose.

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