Studies in Interdisciplinary Horizons
https://sih-journal.com | eISSN: 3082-5792
Volume 2 Issue No. 2 | 2026
Received: March 7, 2026 | May 15, 202 | Published: June 15, 2026

Article

Effectiveness of Token Economy Strategy on Classroom Participation Among Grade 1

[1] **Melanie G. Padua**
Apayao State College

Abstract

This study investigated on how a token economy strategy can be used to improve classroom behavior among Grade 1 learners in a rural school in the Philippines. It was based on the principles of behaviorism that focused on the use of reinforcement to enhance the involvement of learners. Quantitative experimental design was used which involved 20 Grade 1 learners of Palungkada Elementary School. Structured observation checklist was used to gather data before and after a four-week intervention. Changes in participation and behavior were analyzed using descriptive statistics and dependent t-test. Findings indicated that the mean participation in the classroom had a positive change of 4.48 to 5.75, with observed behavior changing to 4.85 to 6.10. The analysis of the effect size revealed that the effects (3.9 and 4.39) were very large, which signified an improvement. The results affirm that the strategies of token economy are effective in encouraging active involvement and positive behavior. Teachers are advised to incorporate the use of structured systems of reinforcement to enhance the process of facilitating engagement and better classroom interactions.

Keywords: *token economy, classroom participation, positive reinforcement, learner behavior*

1. Introduction

Educational programs in the 21st century emphasize not only the cognitive development of learners but also their behavioral engagement, socio-emotional growth, and active involvement in classroom activities. Across global education systems, one of the most widely implemented behavioral management strategies proven effective in increasing participation is the token economy system. Rooted in the principles of operant conditioning, this method involves providing learners with tokens or points as reinforcement for desired behaviors, which they may later exchange for predetermined rewards. Research conducted in various countries has demonstrated how token economies help shape positive classroom behavior, strengthen motivation, and improve learner engagement. Study discussed that well-structured reinforcement systems create a learning environment where learners become more responsible for their actions and increasingly invested in the learning process. These findings have guided many educators worldwide in addressing common classroom issues such as inattentiveness, lack of participation, and inconsistent task engagement among young learners (Hudachek, 2021).

While global studies have consistently supported the effectiveness of token economies, the issue of low participation remains a persistent challenge in many developing countries, especially among lower-grade learners. In international contexts, declining student engagement is often linked to limited readiness skills, reduced attention spans, and insufficient behavioral scaffolding (Fiksdal, 2014). Studies show that up to 20–30% of early-grade learners worldwide struggle with consistent classroom engagement, affecting both academic performance and social development. Researchers recorded significant improvements in learner participation and decreases in disruptive behavior after the application of token-based systems in U.S. classrooms (DeFrancis, 2016). Likewise, positive behavioral outcomes among autistic learners in Malaysian learning environments. However, despite these promising international findings, most studies have been conducted in Western or specialized educational contexts, leaving a gap in understanding how token economies function within regular classrooms in developing nations (Tan & Nordin, 2024).

In the Philippines, the concern about low participation levels in elementary schools has been well documented by national assessments. According to recent Department of Education monitoring reports (2022–2023), teachers across early-grade levels frequently cite passive behavior, limited verbal responses, and low involvement in classroom activities as recurring challenges. Studies indicate that approximately 35–40% of Filipino Grade 1 learners struggle with active participation, often due to developmental readiness issues, limited exposure to structured learning environments, and socio-economic constraints. Even though DepEd strongly promotes positive discipline and child-centered, engaging instructional strategies under the K–12 framework, behavioral reinforcement systems such as token economies have not been widely explored or formally integrated into mainstream early-grade teaching. Existing Philippine studies primarily focus on literacy, numeracy, or cognitive skills, while behavioral engagement remains an under-researched area, creating a notable gap in local educational research and practice.

Furthermore, most behavioral management studies in the country continue to rely on traditional strategies such as verbal praise, punitive measures, or general rule-setting, with very few providing empirical evidence supporting structured reinforcement programs like token economies. This lack

of localized research raises questions regarding whether token economy systems are culturally appropriate, developmentally suitable, and practically sustainable for Filipino learners, particularly those from rural or underserved areas. Although international literature shows positive outcomes, these results cannot be directly assumed for Philippine public-school contexts without contextual validation. Thus, there is an urgent need to investigate whether token economies can effectively enhance participation among young Filipino learners, how these systems interact with local classroom dynamics, and whether they promote long-term behavioral improvement within this specific educational setting.

The situation is even more pronounced in rural schools such as those in Apayao, where issues of learner engagement are often exacerbated by socio-economic conditions, limited access to modernized learning tools, and inconsistencies in teacher training on behavioral intervention strategies. In many far-flung communities, young learners enter Grade 1 with minimal exposure to structured group activities, which often contributes to passive classroom behavior. Schools such as Palungkada Elementary School face additional constraints, including limited educational materials, insufficient reinforcement tools, and challenges in implementing new instructional or behavioral approaches.

Given these national and local concerns, it becomes increasingly important to assess whether a token-based reinforcement method can help increase classroom participation among Grade 1 learners in a rural Philippine public school context. One major aim of the present investigation is to identify changes in student participation before and after the introduction of a token system, highlighting which behaviors show the most improvement such as responding to teacher questions, volunteering for classroom activities, or cooperating during group tasks.

2. Statement of the Problem

This study aimed to examine the effectiveness of the token economy strategy in enhancing the classroom participation of learners. In line with this purpose, the study seeks to address the following questions:

1. What is the level of classroom participation of the learners before and after the implementation of the token economy strategy?
2. Is there significant difference on classroom participation of the learners before and after the implementation of the token economy strategy?
3. What is learner behavior related to participation are observed before and after the implementation of the token economy strategy?
4. Is there significant difference on learner behavior of the learners before and after the implementation of the token economy strategy?

3. Hypothesis

1. There is no significant difference on classroom participation of the learners before and after the implementation of the token economy strategy
2. There is significant difference on learner behavior of the learners before and after the implementation of the token economy strategy?

4. Theoretical Framework

This research is support primarily in B.F. Skinner's Operant Conditioning Theory (1953), which explains how behavior can be modify through reinforcement and consequences. Skinner proposes that behavior followed by positive effects is more likely to be repeat, while behavior that is not reinforce eventually weakens or disappears. Behaviors strengthens by positive reinforcement become consistent patterns over time (Saul, 2025). This theory aligns directly with classroom applications in which teachers reinforce desirable actions such as participation, attentiveness, or cooperation—by providing immediate rewards. The token economy system follows this principle by giving learners tokens in exchange for demonstrating positive behaviors, which they can later trade for privileges or small rewards. In doing so, the system encourages learners to internalize and repeat constructive classroom habits.

The token economy represents one of the clearest and most structured applications of Skinner's behaviorist principles. Through consistent reinforcement, teachers can gradually shape a chain of desired behaviors. Learners receive tokens whenever they display expected classroom actions, and the collection of these tokens strengthens their motivation to continue the behavior. Over time, the link between the action (participation) and its positive outcome (token reward) becomes automatic. As teachers gradually increase task difficulty or extend intervals between rewards, learners remain engage because the reinforcement history has already established strong behavioral patterns. This systematic reinforcement often leads to improved lesson participation, reduced hesitation in engaging with new tasks, and enhanced overall classroom engagement.

To enrich the theoretical grounding of the study, additional complementary theories also support the use of token economy systems in education. Albert Bandura's Social Learning Theory (1977) highlights the role of observational learning, modeling, and social reinforcement. In a classroom using a token system, learners not only respond to reinforcement directed at them but also learn from observing peers who receive tokens. Vicarious reinforcement encourages imitation of positive behaviors, leading to a classroom climate where participation becomes socially expected and rewarded (Cherry, 2024). Bandura's theory supports the idea that reinforcement operates not only at the individual level but also through group dynamics—an important concept in Filipino classrooms where peer influence is strong.

Furthermore, Maslow's Hierarchy of Needs (1943) also provides insight into why token economies can be effective for young learners. At the lower levels of Maslow's hierarchy are physiological and safety needs, followed by belongingness and esteem. Tokens may serve as extrinsic reinforcers that satisfy a learner's need for recognition and achievement (Aanstoos, 2024). In many Philippine public-school contexts especially in rural settings learners often struggle with confidence and classroom adjustment. A reinforcement system that acknowledges their participation helps fulfill their psychological needs for appreciation and belonging, which in turn supports higher-level learning and engagement.

The study also aligns with McClelland's Achievement Motivation Theory (1961), which posits that individuals are driven by a desire for achievement, affiliation, and power. Token economies address the need for achievement by giving learners clear goals to work toward (earning tokens) and tangible recognition upon achieving them (Kurt, 2021). It also contributes to the need for affiliation, as learners collectively participate in a system that recognizes positive behavior and cooperation. This

is especially relevant in Filipino educational settings, where learners often respond strongly to communal and socially oriented motivation.

Finally, the study draws support from Kounin's Classroom Management Theory (1970), particularly the concepts of "withitness" and "momentum." A token economy contributes to smooth classroom management by clearly communicating expectations, maintaining consistent behavioral flow, and minimizing disruptive behavior through proactive reinforcement. Structured reinforcement supports classroom transitions and promotes inclusive learning (Gupta, 2024).

5. Conceptual Framework

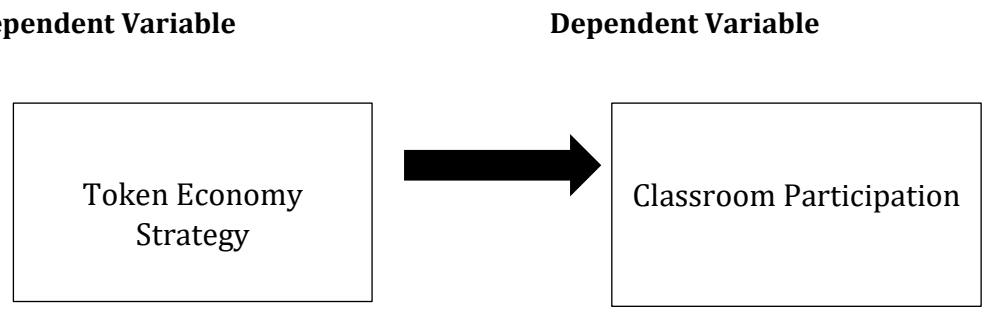

Figure 1. Research Paradigm

The conceptual framework of this study shows the relationship between the Token Economy Strategy as the independent variable and the classroom participation and learner behavior as the dependent variables. The Token Economy Strategy is a systematic reinforcement approach, as illustrated in the framework, to promote and strengthen desirable behaviors and achievements of Grade 1 learners. It is based on study of Skinner that positive reinforcement and uses of tokens to encourage active participation in classroom activities. Learners are motivated to learn responsibly, cooperatively, and participatively in different learning activities when there are rewards.

The framework also outlines that the Token Economy Strategy will not only help reinforce students' engagement but also their overall behavior within the classroom. The strategy reinforces what's done right and what has been achieved, thereby creating a positive and engaging learning culture that makes learners more responsive and responsible for their learning. Positive reinforcement and rewards allow students to see the connection between effort and success, providing ongoing feedback, and gradually develop positive study habits and intrinsic motivation.

The dependent variables include participation in the classroom and learner's behavior, which are manifested by active involvement, cooperation, motivation, focus, and willingness of learners in the learning process inside the classroom. The show that a structured incentive program, like the Token Economy Strategy, can have a substantial effect on the behavior of the learner, especially when the learner is initially passive or less involved in the class. In this way, students can be more confident, active, and responsive in learning activities.

Furthermore, the framework emphasizes how the Token Economy Strategy can contribute to enhance classroom learning environment, shifting from passive learners to active participants. It also helps to foster a more inclusive, stimulating and learner-centered culture where positive behavior and participation is encouraged at all times. Thus, this conceptual framework is used as a guideline

in assessing the effectiveness of Token Economy Strategy in improving the participation of classroom learners and their classroom behavior of grade 1 learners.

6. Methodology

6.1 Research Design

The study utilized a quantitative experimental research design, which helped identify the level to which the token economy strategy was useful in enhancing classroom participation among Grade 1 learners. The design is based on describing, analyzing, and interpreting the changes in the behavior of the learners observed prior to the intervention and after its implementation with the behavioral checklist. The quantitative data was collected in order to determine the degree of classroom engagement of learners at the pre-intervention and post-intervention stages of the research.

The research design helped the researcher to measure the responses of learners by means of a checklist, transforming the practice observed into numerical values, comparing the level of participation at various stages, and specifying behavioral change patterns caused by the reinforcement strategy. It was a method whereby observational, objective, and measurable results could be obtained and were crucial in assessing behavioral interventions within classroom settings (Shona, 2023).

Moreover, the quantitative experimental design allowed considering the reaction of learners to the token economy strategy in an actual classroom setting and introduced the intervention in a systematic manner. It enabled the researcher to determine how effective positive reinforcement could be in enhancing attentiveness, cooperation as well as engagement in the learning process. The appropriate statistical treatment of the data was also supported by the design, therefore, allowing the researcher to identify the degree of behavioral change that could be attributed to the intervention. Effective design was, therefore, suitable in gathering factual and empirical information on the effectiveness of the token economy strategy as a motivational instrument to increase the classroom participation of Grade 1 learners of Palungkada Elementary School, Luna, Apayao.

6.2 Locale of the Study

The research took place at Palungkada Elementary School, Dagupan, Luna, Apayao. It is under the jurisdiction of the local Department of Education, Division of Apayao. The school was one of the main learning centers in the community where children from different barangays in the municipality come to study. It provided basic education from Kindergarten to Grade 6 and supported the objective of giving quality and inclusive education to young learners in the countryside. There was a strong bond between the teachers and the learners, which made the school environment perfect for conducting classroom-based behavioral and instructional interventions.

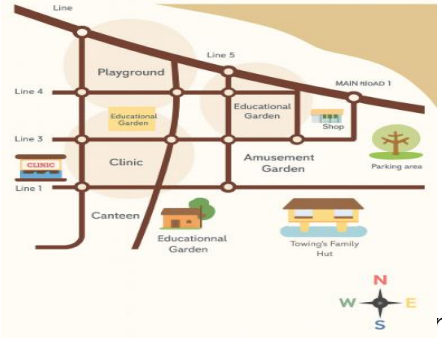

Figure 2. *Palungkada Elementary School site map*

Palungkada Elementary School was chosen as the location of the study because it was a typical rural public-school setting where the problem of student laziness, lack of motivation, and disengagement in the classroom were the common issues observed among primary learners. The Grade 1 class was singled out, in particular, as the focus group since children at this level were the initial stages of their academic and social behaviors. Conducting the research at this school was a means of seeing how the token economy approach could serve as a vehicle for increasing participation in a real classroom setting, thus enabling teachers to determine the most efficient methods for managing and motivating young learners in similar educational environments across the region.

6.3 Participants of the Study

The study respondents were all the 20 Grade 1 learners of Palungkada Elementary School, Dagupan, Luna, Apayao and they were divided into 8 boys and 12 girls. No sampling method was used in the study since the research was conducted by applying experimental design utilizing a behavioral checklist, and all the learners of the whole class took part in the intervention.

The participants were selected due to the fact that they were at the initial phase of formal schooling and that the process of classroom participation and learning motivation development was crucial. The sample was a typical primary grade classroom in a rural public-school environment, which made it suitable to test the impact of the token economy strategy on the classroom attendance of learners.

The study was voluntary, and the school administrative was consulted in addition to informed consent by the parents or guardians of the learners. The fact that the study would involve both male and female learners enabled the researcher to identify the behavioral reactions and participation rates between the two sexes during the intervention.

Table 1. *Distribution of Respondents by Sex*

Sex	**Frequency**	**Percentage**
Male	8	40%
Female	12	60%
Total	**20**	**100%**

6.4 Research Instruments

The primary research instrument that was used in this study was an adopted observation checklist originally developed form the study of Davie I., about the development of token strategy (Davie et al., 2024). The instrument was designed to measure the classroom participation and behavioral changes of Grade 1 learners before and after the implementation of the token economy strategy. It used a structured 7-point Likert scale, where responses ranged from 1 (Never) to 7 (Always), allowing for a detailed and quantitative assessment of learners' behaviors.

Table 2: 7-point Likert scale

Scale	Descriptive Rating
7	Always
6	Frequently
5	Often
4	Sometimes
3	Occasionally
2	Rarely
1	Never

The instrument consisted of three major parts. Part I focused on the level of classroom participation, including indicators such as paying attention, raising hands to answer questions, participating in activities, cooperating with classmates, following instructions, completing tasks, showing eagerness, initiating responses, maintaining focus, and demonstrating confidence when speaking. These items helped determine the baseline and post-intervention participation levels of each learner.

Part II evaluated the observed behavior changes that may emerged during the implementation of the token economy. Indicators included cheerfulness, curiosity, neatness of work, cooperation, empathy, independence, pride in accomplishing tasks, patience, self-control, compliance with instructions, ability to concentrate, adherence to rules, task completion, and preparedness for classroom activities. This section captured broader behavioral improvements beyond participation.

Part III consisted of an effect size observation sheet, where the teacher recorded each learner's total score before and after the intervention and computes the difference. This supported the quantitative analysis of the effectiveness of the token economy strategy.

Since the instrument was adapted from a previously developed and utilized tool, no additional validation was required. It established structure that ensured it appropriately captured the intended measures of participation and behavioral change among Grade 1 learners.

6.5 Data Gathering Procedure

The data gathering procedure was completed through step-by-step to ensure that the results were accurate, consistent, and credible. Prior to actual data collection, the researcher visited the school head of Palungkada Elementary School in Luna, Apayao, to obtain permission to conduct the study among Grade 1 learners. A formal letter of permission stating the purpose, scope, and ethical standards of the research was submitted. Upon receiving approval, the researcher also secured the consent of the parents or guardians of the learners as the participants were minors. This step ensured that all ethical and institutional requirements were met before the study was carried out.

The data gathering was done in three main stages: pre-implementation, implementation, and post-implementation. During the pre-implementation phase, the researcher conducted an initial observation using the validated classroom participation checklist to assess the existing level of

classroom participation among the learners. This pretest served as a basis for comparison with posttest results after the implementation of the token economy strategy.

In the implementation phase, the researcher introduced the token economy strategy into the classroom for a certain period of time (for instance, four weeks). Learners received tokens like stars or points when they actively participated in class, gave correct answers to questions, followed instructions, or showed good behavior. At the end of each week, tokens were traded for small and inexpensive but desirable items such as stickers, a few minutes of extra playtime, or teacher's praise. The researcher kept track of, and write down, each student's participation during this phase to ensure the accuracy of the behavioral changes that were made.

Lastly, during the post-implementation phase, the researcher also used the same observation checklist to evaluate the learners' level of classroom participation after applying the token economy strategy. The posttest scores were compared with the pretest results to determine if there was a significant increase in participation levels. All data collected were carefully considered, recorded and encoded for a statistical analysis. To ensure the findings' remained objective and accurate, the researcher ensured that observations were conducted consistently, free from personal bias, and guided by clearly defined criteria.

6.6 Ethical Consideration

Before data collection, a letter of consent was given to the learners' parents or guardians. This letter explained the research's aim, the procedures, and the fact that participation was voluntary. Learners with parental consent forms only were allowed to participate in the research.

The researcher also obtained an endorsement from the principal conforming that the study would be conducted in the classroom. During the period of research, the learners were treated with the highest degree of respect and care. Moreover, the activities carried out during the implementation of the token economy strategy were designed as a means of protecting, engaging, and educating learners, thus ensuring no psychological or emotional injury occurred. The use of grading, punishment, or coercion was completely ruled out during the implementation of the strategy. Participation was voluntary, and learners were informed that they could leave the study at any time without facing any negative consequences.

Efforts were made to protect the confidentiality of the information obtained. Learners' names were not included in any narrative, chart, or publication; instead, numerical identifiers were used solely for academic and research purposes and were kept in a safe place by the researcher.

6.7 Statistical Treatment of Data

The data collected from the observation checklists and profile sheets were systematically analyzed using appropriate statistical tools to ensure precision and accuracy in interpreting the results of the study. To address the first research question regarding the profile of respondents in terms of age and sex, the researcher utilized frequency and percentage distribution. This method provided a summary of how many respondents belonged to each category and the corresponding percentage of the total group.

This statistical approach helped describe the demographic composition of the Grade 1 learners and provided a clearer picture of their background characteristics.

To determine the level of classroom participation before and after the implementation of the token economy strategy, the weighted mean was employed. The weighted mean allowed the researcher to compute an overall average score that represented the general level of participation across multiple indicators such as attentiveness, engagement, cooperation, and task completion. The computed weighted mean scores were then classified using the mean range score, to make interpretation more meaningful and comprehensive.

Table 3: Interval and its Corresponding Level of Participation

Mean Range	Interpretation
6.15 – 7.00	Very High Participation
5.29 – 6.14	High Participation
4.43 – 5.28	Moderately High Participation
3.57 – 4.42	Moderate Participation
2.71 – 3.56	Moderately Low Participation
1.85 – 2.70	Low Participation
1.00 – 1.84	Very Low Participation

To evaluate whether there was a significant difference between the pretest and posttest results of classroom participation, the dependent t-test (paired samples t-test) was used. This inferential statistical tool was appropriate since the same group of learners was assessed before and after the implementation of the token economy strategy. The computed t-value was compared with the tabular t-value at a 0.05 level of significance to determine whether the change in classroom participation was statistically significant and not due to random chance.

All computations were carried out using appropriate statistical software to ensure accuracy and efficiency in data analysis. The results were then presented in tabular form and interpreted comprehensively in the discussion section. This rigorous statistical process enabled the researcher to draw valid conclusions regarding the effectiveness of the token economy strategy in enhancing the classroom participation of Grade 1 learners.

7. Results and Discussion

This part presents the analysis, interpretation, and discussion of the data gathered in the study on the effectiveness of the Token Economy Strategy in improving the classroom participation and observed behavior of Grade 1 learners. The presentation of findings follows the sequence of the statement of the problem. Descriptive statistics such as mean and standard deviation were utilized to determine the level of classroom participation and observed behavior before and after the implementation of the intervention, while inferential statistics, specifically the paired sample t-test, were employed to identify whether significant differences existed between the pretest and posttest results. The findings are further supported by relevant theories and empirical studies to provide deeper understanding and interpretation of the results. The discussions highlight the extent to which the Token Economy Strategy influenced learners' participation, engagement, and positive classroom behaviors.

Table 1. Grade 1 learner's classroom participation before and after the implementation of token economy strategy

Indicators of Classroom Participation	**Before Implementation**	**Interpretation**	**After Implementation**	**Interpretation**
1. Pays attention to the teacher	4.90	Moderately High Participation	6.10	High Participation
2. Raises hand to answer questions	4.25	Moderate Participation	5.55	High Participation
3. Participates actively in classroom activities	4.15	Moderate Participation	5.60	High Participation
4. Cooperates and interacts positively with classmates	4.55	Moderately High Participation	5.95	High Participation
5. Follows instructions promptly	4.70	Moderately High Participation	6.00	High Participation
6. Completes tasks and assignments on time	5.30	High Participation	5.90	High Participation
7. Shows eagerness to contribute ideas	4.30	Moderate Participation	5.60	High Participation
8. Initiates responses or ideas without prompting	4.20	Moderate Participation	5.40	High Participation
9. Demonstrates focus and attention throughout lessons	4.40	Moderate Participation	5.90	High Participation
10. Demonstrates confidence when speaking in class	4.05	Moderate Participation	5.50	High Participation
Overall Mean	**4.48**	**Moderately High Participation**	**5.75**	**High Participation**

The table presents the classroom participation of Grade 1 learners before and after the implementation of the Token Economy Strategy. Before the implementation, learners demonstrated an overall mean score of 4.48, interpreted as Moderately High Participation. Among the indicators, "completes tasks and assignments on time" obtained the highest mean score of 5.30, interpreted as High Participation, while "demonstrates confidence when speaking in class" obtained the lowest mean score of 4.05, interpreted as Moderate Participation. Other indicators such as paying attention to the teacher (4.90), cooperating and interacting positively with classmates (4.55), and following instructions promptly (4.70) were interpreted as Moderately High Participation. These findings indicate that learners already manifested positive classroom participation behaviors even before the implementation of the Token Economy Strategy.

The results suggest that Grade 1 learners often displayed desirable classroom behaviors due to established classroom routines, teacher guidance, and structured learning environments. These findings are supported by Vygotsky's (1978) Social Development Theory, which emphasizes that learning occurs through social interaction and guided participation. Similarly, Piaget (1964) explained that children in the preoperational stage tend to respond positively to authority, routines, and classroom structures, which may explain the learners' attentiveness and compliance. The findings are also consistent with Marzano (2003), who emphasized that clear classroom expectations and effective classroom management contribute to learner engagement even without reinforcement systems. Likewise, Kounin (1970) and Cotton (2001) highlighted that organized classroom environments encourage listening, cooperation, and active participation among young learners. Furthermore, Skinner's (1953) Behavioral Theory explains that learners may already demonstrate

positive behaviors because they have been conditioned by classroom norms and prior reinforcement experiences.

After the implementation of the Token Economy Strategy, learners showed a noticeable improvement in classroom participation, reflected in the overall mean score of 5.75, interpreted as High Participation. The highest mean score was observed in "pays attention to the teacher" with 6.10, while the lowest mean score was found in "initiates responses or ideas without prompting" with 5.40. Despite obtaining the lowest mean, the indicator was still interpreted as High Participation, indicating improvement after the intervention. Other indicators such as cooperating with classmates (5.95), completing tasks on time (5.90), following instructions promptly (6.00), and demonstrating focus and attention throughout lessons (5.90) also reflected high levels of classroom participation. These findings reveal that the Token Economy Strategy positively influenced learners' engagement, attentiveness, cooperation, and confidence in classroom activities.

The improvement in classroom participation after the implementation of the Token Economy Strategy supports Skinner's (1953) theory of positive reinforcement, which explains that behaviors followed by rewards are more likely to be repeated. The consistent provision of tokens encouraged learners to associate positive classroom behaviors with rewarding outcomes, thereby increasing participation and engagement. The findings are further supported by Boniecki and Moore (2003), who found that token economy systems effectively enhance both directed and spontaneous classroom participation. Similarly, Maggin et al. (2011) concluded that token economy strategies are evidence-based approaches in improving classroom behavior and student engagement. Moreover, Alqahtani (2020) emphasized that token economy interventions significantly improve learners' motivation, participation, and behavioral skills.

Table 2: Paired Sample t-Test on the Classroom Participation of Grade 1 Learners Before and After the Implementation of the Token Economy Strategy

Variables	**Mean**	**SD**	**df**	**t - value**	**p-value**	**Interpretation**
Before Implementation	4.48	1.4	19	4.2	0.0004	Significant
After Implementation	5.75	1				

The paired sample t-test results show that the Token Economy Strategy significantly improved the classroom participation of Grade 1 learners. Before the implementation, learners obtained a mean score of 4.48 with a standard deviation of 1.40, while after the implementation, the mean score increased to 5.75. The computed t-value of 4.20 with 19 degrees of freedom and a p-value of 0.0004 indicates a statistically significant difference between the pretest and posttest scores. Since the p-value is lower than the 0.05 level of significance, the null hypothesis is rejected. This means that the implementation of the Token Economy Strategy had a significant positive effect on the classroom participation of Grade 1 learners.

The increase in the mean score from 4.48 to 5.75 suggests that learners became more engaged, attentive, cooperative, and active in classroom activities after the intervention. This implies that reinforcement-based strategies such as the Token Economy Strategy can positively shape learner behavior and promote active participation in the classroom. The findings further suggest that rewards and positive reinforcement encourage learners to consistently demonstrate desirable behaviors and become more involved in learning tasks. The improvement also indicates that young learners respond well to structured motivational systems that recognize and reward positive participation.

These findings are strongly anchored in Skinner's (1953) Operant Conditioning Theory, which explains that behaviors followed by positive reinforcement are more likely to be repeated. In this study, learners who received tokens for desirable classroom behaviors were motivated to participate more actively and consistently. The Token Economy Strategy functioned as an external reinforcement mechanism that strengthened classroom engagement and participation over time.

The findings align with Hattie (2009), who emphasized that interventions involving feedback, reinforcement, and motivation have strong positive effects on student learning and behavior. The significant difference observed in the study suggests that reinforcement-based interventions can help create a more engaging and learner-centered classroom environment. The Token Economy Strategy not only improved participation but also encouraged learners to develop confidence, responsibility, cooperation, and attentiveness during classroom activities.

Table 3. Grade 1 learner's observed behavior before and after the implementation of token economy strategy

Indicators of Observed Behavior	Before Implementation	Interpretation	After Implementation	Interpretation
1. Is cheerful/happy	5.30	Highly Observed Behavior	6.40	Very Highly Observed Behavior
2. Is curious and exploring; tries new experiences	4.30	Moderately Observed Behavior	5.70	Highly Observed Behavior
3. Does neat, careful work	4.70	Moderately Highly Observed Behavior	5.65	Highly Observed Behavior
4. Gets along well with other learners	4.95	Moderately Highly Observed Behavior	6.50	Very Highly Observed Behavior
5. Is helpful and cooperative	5.05	Moderately Highly Observed Behavior	6.55	Very Highly Observed Behavior
6. Shows concern for other people's feelings	4.70	Moderately Highly Observed Behavior	6.30	Very Highly Observed Behavior
7. Is self-reliant; does things independently	5.00	Moderately Highly Observed Behavior	5.90	Highly Observed Behavior
8. Shows pride when doing something well and learning something new	4.40	Moderately Observed Behavior	5.65	Highly Observed Behavior
9. Waits turn in games and other activities	5.00	Moderately Highly Observed Behavior	6.20	Very Highly Observed Behavior
10. Thinks before acting; is not impulsive	4.65	Moderately Highly Observed Behavior	6.05	Highly Observed Behavior
11. Usually follows teacher's instructions	5.05	Moderately Highly Observed Behavior	6.30	Very Highly Observed Behavior
12. Is able to concentrate or focus on an activity	4.70	Moderately Highly Observed Behavior	6.00	Highly Observed Behavior

13. Follows classroom rules	5.05	Moderately Highly Observed Behavior	6.20	Very Highly Observed Behavior
14. Completes activities until finished	5.15	Moderately Highly Observed Behavior	6.15	Very Highly Observed Behavior
15. Is well-prepared for classroom work or tests	4.75	Moderately Highly Observed Behavior	5.90	Highly Observed Behavior
Overall Mean	**4.85**	**Moderately Highly Observed Behavior**	**6.10**	**Highly Observed Behavior**

The table presents the observed behavior of Grade 1 learners before and after the implementation of the Token Economy Strategy. Before the implementation, the learners obtained an overall mean score of 4.85, interpreted as Moderately Highly Observed Behavior. Among the indicators, "is cheerful/happy" obtained the highest mean score of 5.30, interpreted as Highly Observed Behavior, while "is curious and exploring; tries new experiences" garnered the lowest mean score of 4.30, interpreted as Moderately Observed Behavior. Most indicators such as getting along well with other learners (4.95), being helpful and cooperative (5.05), following classroom rules (5.05), and completing activities until finished (5.15) were interpreted as Moderately Highly Observed Behavior. These findings indicate that learners already manifested positive behaviors consistently even before the implementation of the Token Economy Strategy.

The results suggest that Grade 1 learners frequently exhibited positive behaviors such as cooperation, self-reliance, rule-following, attentiveness, and task completion because of structured classroom routines and social interactions. These findings are supported by Vygotsky's (1978) Social Development Theory, which emphasizes that children develop appropriate behaviors through guided participation and interaction with teachers and peers. Similarly, Piaget's (1964) Cognitive Development Theory explains that children in their developmental stage begin to develop self-regulation, independence, and moral reasoning, which are reflected in behaviors such as waiting for their turn, following instructions, and completing tasks responsibly. Bandura's (1977) Social Learning Theory also supports the findings, stating that children acquire behaviors through observation and imitation of role models such as teachers and classmates

After the implementation of the Token Economy Strategy, the observed behavior of Grade 1 learners significantly improved, reflected in the overall mean score of 6.10, interpreted as Highly Observed Behavior. The highest mean scores were obtained by "is helpful and cooperative" (6.55) and "gets along well with other learners" (6.50), both interpreted as Very Highly Observed Behavior. Other indicators such as showing concern for other people's feelings (6.30), usually following teacher's instructions (6.30), waiting for turns in games and activities (6.20), following classroom rules (6.20), and completing activities until finished (6.15) were also interpreted as Very Highly Observed Behavior. Meanwhile, indicators such as being curious and exploring new experiences (5.70), doing neat and careful work (5.65), and showing pride in learning something new (5.65) were interpreted as Highly Observed Behavior. These findings reveal that the Token Economy Strategy positively influenced learners' social, emotional, and behavioral development.

The improvement in learners' observed behavior after the implementation of the Token Economy Strategy supports Skinner's (1953) Operant Conditioning Theory, which explains that behaviors followed by positive reinforcement are more likely to be repeated. Through the consistent provision of rewards or tokens, learners became more motivated to display desirable classroom behaviors such as cooperation, attentiveness, responsibility, and self-control. The findings are further supported by

Maggin et al. (2011), who concluded that token economy systems are effective in improving classroom behaviors and increasing learner engagement among elementary pupils. Similarly, Boniecki and Moore (2003) found that reinforcement systems enhance positive social behaviors and active classroom participation, consistent with the high ratings in cooperation and peer interaction observed in the study. Bandura's (1977) Social Learning Theory also explains that learners tend to imitate behaviors that are rewarded in social settings, which may have encouraged learners to consistently display positive actions. Furthermore, Alqahtani (2020) emphasized that token economy interventions improve not only behavioral compliance but also learners' motivation and socio-emotional growth. Overall, the findings confirm that the Token Economy Strategy was an effective intervention in enhancing consistent and positive observed behaviors among Grade 1 learners.

Table 4: Paired Sample t-Test on the Observed Behavior of Grade 1 Learners Before and After the Implementation of the Token Economy Strategy

Variables	**Mean**	**SD**	**df**	**t - value**	**p-value**	**Interpretation**
Before Implementation	4.85	1.40	19	4.4	0.0002	Significant
After Implementation	6.09	0.69				

The paired sample t-test results indicate that the Token Economy Strategy significantly improved the observed behavior of Grade 1 learners. Before the implementation, learners obtained a mean score of 4.85 with a standard deviation of 1.40, suggesting moderately high observed behavior with varied responses among learners. After the implementation, the mean score increased to 6.09 with a lower standard deviation of 0.69, indicating highly observed behavior and more consistent responses among participants. The decrease in standard deviation further suggests that the learners' behaviors became more uniform and stable after the intervention.

The computed t-value of 4.40 and p-value of 0.0002 show that there was a statistically significant difference between the observed behavior of learners before and after the implementation of the Token Economy Strategy. Since the p-value is lower than the 0.05 level of significance, the null hypothesis was rejected. This implies that the Token Economy Strategy had a significant positive effect on the observed behavior of Grade 1 learners. The increase in the mean score from 4.85 to 6.09 indicates that learners became more cooperative, attentive, self-reliant, responsible, and socially engaged after being exposed to the reinforcement-based intervention.

The findings strongly support Skinner's (1953) Operant Conditioning Theory, which explains that positive reinforcement strengthens desired behaviors when rewards are consistently provided. Through the token economy system, learners received tokens or rewards whenever they displayed positive classroom behaviors, encouraging them to repeat such actions consistently

The results are also supported by Bandura's (1977) Social Learning Theory, which emphasizes that children acquire behaviors through observation, imitation, and reinforcement within social environments. As learners observed their classmates' receiving rewards for positive behavior, they became more motivated to imitate similar actions such as cooperation, following classroom rules, and showing respect toward others. This contributed to the overall improvement in socio-emotional and behavioral responses observed after the intervention.

Empirical studies further validate the findings of the present study. Maggin et al. (2011) concluded that token economy interventions are highly effective in improving classroom behavior, attentiveness, and task completion among elementary learners. Similarly, Boniecki and Moore (2003) found that reinforcement systems significantly increase learner engagement, cooperation, and positive classroom conduct. Moreover, Alqahtani (2020) reported that token economy strategies positively influence behavioral compliance, motivation, and emotional development among young learners. The decrease in standard deviation in the present study is also consistent with research suggesting that effective behavioral interventions not only improve mean scores but also reduce variability, leading to more consistent positive behaviors among learners.

8. Summary of Findings

The study revealed that before the use of the intervention, Grade 1 learners' mean score for classroom participation was 4.48, which is considered as Moderately High Participation. While after the implementation of the intervention, the mean score increased to5.75 which is interpreted as High Participation. The results indicated that students' attention, cooperation, active involvement in classroom activities, confidence in speaking, and task completion improved. This means that the Token Economy Strategy had a positive effect on classroom participation of the Grade 1 learners.

The paired sample t-test results indicated that there was a significant difference in the classroom participation of learners before and after the implementation of the Token Economy Strategy. A p-value that is less than 0.05, at the level of significance, indicates that the Token Economy Strategy had a significant impact on the participation of Grade 1 learners in class. The results suggest that reinforcement-based interventions are effective in increasing learners' motivation to participate in classroom activities.

The study also revealed that Grade 1 learners' behavior prior to the implementation of the Token Economy Strategy was generally considered as Moderately Highly Observed Behavior with a mean score of 4.85. After the implementation, the overall mean score rose to 6.10, which is considered to be a Highly Observed Behavior.. Students showed progress in their social interaction, following class rules, emotional control, self-reliance, attentiveness, and cooperation. The results show that the Token Economy Strategy positively contributed to the behavioral development of learners.

Furthermore, the paired sample t-test outcomes indicated that significant difference in the observed behavior of learners before and after the implementation of the Token Economy Strategy. The computed p-value was 0.0002 which is lower than the level of significance (p-value<0.05) rejects the null hypothesis. This suggests that the Token Economy Strategy was very effective in increasing the observed behavior of the Grade 1 learners. The results support the effectiveness of reinforcement strategies in supporting positive and consistent behaviors in the classroom with young learners.

9. Conclusions

The study concluded that the classroom participation of Grade 1 students has improved as a result of the use of Token Economy Strategy. The learners' activities in class in terms of their attention, cooperation, engagement, and confidence were increased. Rewards and reinforcement led to an active and sustained involvement of the learners in learning tasks.

It was found that the students' classroom involvement before and after the use of the Token Economy Strategy was significantly different. This intervention was a very successful classroom management aid that positively affected the involvement and engagement of learners. Thus, reinforcement-based approaches have been found to be useful in enhancing classroom interaction between Grade 1 learners.

Additionally, the observed behavior of the learners significantly improved following the Token Economy Strategy was applied. Learners exhibited greater positive social behaviors including cooperativeness, responsibility, self-control, attentiveness and respecting classroom rules. The strategy was helpful in establishing a more positive learning environment that supports learner development.

Finally, the study found that there was a significant difference in the behaviors of learners pre- and post-implementation of the Token Economy Strategy. The results supported the effectiveness of the strategy in reinforcing positive classroom behaviors. Therefore, the Token Economy Strategy can be deemed as a successful intervention in enhancing classroom participation and positive learner behavior of Grade 1 learners.

10. Recommendations

Based on the findings of the study the following recommendations are made:

- Teachers should utilize the Token Economy Strategy as a classroom management and motivational tool to improve learners' classroom participation, attentiveness, cooperation, and positive behavior. Teachers are also encouraged to provide consistent reinforcement and recognition to sustain learners' engagement and motivation in classroom activities.
- School Administrators should support the implementation of reinforcement-based interventions such as the Token Economy Strategy by providing training, instructional resources, and professional development programs for teachers. Monitoring and evaluation of classroom management practices may also be strengthened to ensure effective implementation.
- The Department of Education (DepEd) should consider integrating positive reinforcement strategies and behavior management programs into teacher training seminars, curriculum support programs, and classroom management policies to promote learner engagement and positive behavior in elementary classrooms.
- Future Researchers should conduct similar studies using larger samples, different grade levels, or other subject areas to further validate the effectiveness of the Token Economy Strategy. Future studies may also explore the long-term effects of reinforcement-based interventions on learners' academic performance, motivation, social development, and behavioral outcomes.

References

Aanstoos, C. M. (2024). Maslow's hierarchy of needs. Research Starters – Psychology.

Akpotaire, N. (2020). Teachers' perception on the use of token economy systems (Master's thesis, Houston Baptist University).

Alqahtani, R. M. (2020). The effects of a token economy system to improve social, academic, and behavior skills with children. International Journal of Learning and Development, 10(3), 11–20.

Amerstorfer, C. M., & Freiin von Münster-Kistner, C. (2021). Student perceptions of academic engagement and student–teacher relationships. Frontiers in Psychology. https://doi.org/10.3389/fpsyg.2021

Bandura, A. (1977). Social learning theory. Prentice Hall.

Boniecki, K. A., & Moore, S. (2003). Breaking the silence: Using a token economy to reinforce classroom participation. Teaching of Psychology, 30(3), 224–227.

Cherry, K. (2024). How social learning theory works. Verywell Mind.

Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). Lawrence Erlbaum Associates.

Cotton, K. (2001). Schoolwide and classroom discipline. Northwest Regional Educational Laboratory.

Davie, I., et al. (2024). The effectiveness of token economy strategy in improving academic self-esteem and positive behavior of Grade 2 learners (Master's thesis).

DeFrancis, S. (2016). A qualitative study analysis on how utilizing a token economy impacts behavior and academic success (Doctoral dissertation, Brandman University).

Eckert, M., et al. (2023). Token-based reward systems and academic engagement. Frontiers in Psychology.

Fiksdal, B. L. (2014). A comparison of the effectiveness of a token economy system, a response cost condition, and a combination condition (Master's thesis, Minnesota State University, Mankato).

Gupta, S. (2024). Promoting inclusive education through Kounin's theory. Education Administration: Theory and Practice, 30(1), 4705–4708.

Hackenberg, T. D. (2009). Token reinforcement: A review and analysis. Journal of the Experimental Analysis of Behavior, 91(2), 257–286.

Hattie, J. (2009). Visible learning: A synthesis of over 800 meta-analyses relating to achievement. Routledge.

Hudachek, S. (2021). The use of a token economy to help motivate learners (Master's thesis, Northwestern College).

Kassab, S. E., Al-Eraky, M., El-Sayed, W., & Hamdy, H. (2023). Measurement of student engagement in health professions education: A review of literature. BMC Medical Education.

Karuppusamy, K. R., & Kalaivani, D. (2023). Token economies in the classroom: A review of literature.

Kazdin, A. E. (1982). The token economy: A review and evaluation. Springer.

Kounin, J. S. (1970). Discipline and group management in classrooms. Holt, Rinehart & Winston.

Kurt, S. (2021). McClelland's three needs theory. Education Library.

Maggin, D. M., Chafouleas, S. M., Goddard, K. M., & Johnson, A. H. (2011). A systematic evaluation of token economies as a classroom management tool for students with challenging behavior. Journal of School Psychology, 49(5), 529–554.

Marzano, R. J. (2003). Classroom management that works: Research-based strategies for every teacher. ASCD.

Piaget, J. (1964). Development and learning. Journal of Research in Science Teaching, 2(3), 176–186.

Saul, M. (2025). Operant conditioning: What it is, how it works, and examples. Simply Psychology.

Shakespear, D., et al. (2018). Effects of token economy on classroom behavior and participation.

Shona, M. (2023). Descriptive research: Definition, types, methods & examples. Scribbr.

Skinner, B. F. (1953). Science and human behavior. Macmillan.

Tan, Y. D., & Nordin, M. N. (2024). The effectiveness of token economy. Special Education (SE), 2(1), e0011.

Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. Harvard University Press.