

IMPLEMENTATION OF A TOKEN ECONOMY TECHNIQUE TO IMPROVE ENGLISH LEARNING ATTENTION AMONG STUDENTS AT LKP ENDEMIC

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Article info	ABSTRACT
<p>Corresponding Author:</p> <p>Yoyok Febrijanto yoyokfeb@gmail.com STIKES RS Baptis Kediri</p>	<p>This community service activity reports the implementation of a token economy technique to support attention during English-language learning at LKP Endemic, Warungjayeng, Nganjuk. The activity used a classroom-action-oriented plan–act–observe–reflect framework involving 12 learners. Attention was operationalized through 20 observable indicators grouped into seven dimensions: attention orientation, sustained attention, task engagement, response to instruction, active participation, distraction control, and self-regulation. The intervention combined immediate token delivery, behavior-specific verbal praise, token recording, exchange opportunities, and gradual fading. Descriptive results showed a group mean of 43.92/80 at pre-intervention, 56.08/80 in Cycle I, and 67.75/80 in Cycle II. The absolute increase from baseline to Cycle II was 23.83 points, corresponding to a relative increase of approximately 54.26% from baseline. The largest descriptive improvements were observed in response to instruction, active participation, distraction control, and self-regulation. Cycle I reflection identified the need for more consistent timing of token delivery, more explicit behavior-specific praise, and reduced dependence on external rewards; these changes informed Cycle II through selective token delivery and gradual fading. Because the activity involved a small group without a comparison condition, the findings should be interpreted as descriptive evidence of local implementation rather than as a causal estimate of effectiveness. The findings provide a practical framework for integrating behavioral reinforcement with English-learning activities in a non-formal learning setting.</p>
	<p>Keywords: <i>token economy; learning attention; English learning; positive reinforcement; classroom action; self-regulation</i></p>
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INTRODUCTION

Attention is a crucial component of learning because it helps learners select relevant stimuli, maintain engagement with a task, respond to instructions, and manage distractions unrelated to learning goals. Attention is not a single, unitary ability; rather, it involves orienting to relevant stimuli and control processes that help individuals maintain goals and regulate behavior in accordance with task demands (Petersen & Posner, 2012). In English language learning, these functions are reflected in observable behaviors such as directing one's gaze toward the teacher or instructional materials, listening to instructions, following

pronunciation models, initiating tasks, sustaining activity, and returning to the task after a distraction.

Attentional difficulties in learning do not necessarily indicate inadequate language proficiency. Learners may understand the material but miss information when they fail to sustain attention, respond slowly to transitions, or engage in conversations and activities unrelated to the task. Accordingly, the present activity defines attention behaviorally rather than relying on a global judgment of being 'focused' or 'unfocused.' The observation framework distinguishes initial orientation, sustained attention, task engagement, responsiveness to instructions, participation, distraction control, and self-regulation. This operational approach also makes the intervention targets explicit and allows changes to be documented across the implementation stages.

The behaviorist approach provides a theoretical foundation for using reinforcement to increase the likelihood that desired behaviors will recur. A token economy is a structured reinforcement system in which target behaviors are followed by tokens that function as conditioned reinforcers and can later be exchanged for backup reinforcers. Its core components generally include clearly defined target behaviors, tokens, backup reinforcers, exchange rules, and procedures for fading the system (Maggin et al., 2011; Matson & Boisjoli, 2009). A systematic review and meta-analysis by Kim et al. (2022) reported substantial effects of token economy practices across K–5 educational settings, although implementation characteristics varied across contexts. The evidence cited in this article is therefore relevant to the reinforcement mechanism, while the present activity extends its practical application to a non-formal English-learning setting.

In this activity, reinforcement is not positioned merely as a reward for correct answers. Tokens are awarded primarily when learners demonstrate predefined attentive behaviors. The intervention therefore targets the learning process itself: attending to instructions, listening until the end, promptly starting tasks, following English-language instructions, participating in pair or group activities, minimizing distractions, and returning to the task after minor interruptions. This distinction is important because generalized reinforcement may shift learners' attention toward obtaining rewards rather than understanding the behaviors expected of them. Behavior-specific reinforcement instead makes behavioral contingency explicit.

Behavior-specific praise is also incorporated into the token economy. Royer et al. (2019) reported evidence that teacher-delivered behavior-specific praise is associated with improved student performance and reductions in inappropriate behavior, while Drake and Nelson (2021) highlighted substantial variation in teachers' natural use of praise. Accordingly, tokens in this activity are accompanied by a brief description of the behavior, for example, 'Great job looking at the materials and listening to the instructions all the way through.' The purpose is to connect the positive consequences with a concrete behavior that learners can recognize and reproduce.

Beyond observable behavioral change, the activity also seeks to support self-regulation. Zimmerman (2002) describes self-regulated learning as a process through which learners actively direct their thoughts, motivation, and behavior toward learning goals. A token economy should therefore not be treated as an indefinite external-control system. If tokens are delivered for every instance of desired behavior, learners may become dependent on external consequences. Fading is consequently incorporated into the intervention: as target

behaviors become more stable, tokens are delivered more selectively while social praise and opportunities to demonstrate successful behavior without tokens are maintained.

A practical gap is therefore apparent between evidence on token economy procedures, which has largely been reported in school-based or behavior-management contexts, and their implementation in non-formal English-learning programs. This activity addresses that gap at the local implementation level by documenting the target behaviors, reinforcement procedures, fidelity issues, learner responses, and iterative refinement across two cycles.

The context of LKP Endemic presents practical requirements that differ from those of formal school classrooms. English instruction takes place in a non-formal learning environment with learners who may differ in ability, participation, and susceptibility to distraction. The initial observation involved 12 learners and produced a group mean of 43.92 out of a maximum score of 80. The lowest baseline dimensions were self-regulation (2.00/4), distraction control (2.06/4), response to instruction (2.08/4), and sustained attention (2.17/4), indicating areas that could be prioritized in the intervention.

Given these conditions, the activity was designed not merely to compare scores before and after intervention, but to document how the token economy was implemented, which target behaviors were reinforced, how learners responded, which Standard Operating Procedure (SOP) components required refinement, and how reflection from Cycle I informed Cycle II. The article therefore aims to describe the implementation of a token economy in English-language instruction and to report descriptive changes in learner attention across the pre-intervention, Cycle I, and Cycle II stages.

METHOD

The activity employed a community service design informed by Classroom Action Research (CAR), using a plan–act–observe–reflect cycle. A pre-intervention phase served as a baseline, followed by Cycle I and a refined Cycle II. The design emphasized iterative improvement of instructional practice rather than a controlled experimental test of causal effectiveness.

The activity took place at LKP Endemic in Warungjayeng, Nganjuk. On September 19, 2026, the team coordinated with the institution's director and two English teachers and conducted an initial observation of 12 learners. Cycle I was carried out on September 28, 2026, comprising five sessions covering vocabulary and classroom objects, daily activities, simple instructions, short conversations, and a review/performance session with initial fading. The manuscript reports Cycle II as taking place on October 8, 2026; this date should be verified against the actual implementation and publication timeline before submission. The instructional structure remained comparable across cycles, while Cycle II refined token selectivity, behavior-specific praise, and fading.

The primary instrument was an observation sheet featuring 20 indicators rated on a 1–4 scale, with a maximum possible total score of 80. The seven observed dimensions included attention orientation (items 1–3), sustained attention (4–6), task engagement (7–10), response to instruction (11–13), active participation (14–16), distraction control (17–19), and self-regulation (20). Supporting data were derived from token monitoring, fidelity checklists, teacher interviews, reflective journals, and documentation. Because the manuscript does not report formal psychometric validation of the observation sheet, the scores should be presented as activity-monitoring data rather than as a validated standardized attention scale.

The token economy procedure consisted of six steps: (1) establishing target behaviors before the activity; (2) explaining expectations to learners; (3) observing behavior; (4) awarding tokens immediately after the target behavior occurred; (5) providing behavior-specific verbal praise while recording the token; and (6) conducting exchanges according to a reinforcement menu. In Cycle II, tokens were awarded more selectively to encourage behavior maintenance and self-regulation. Quantitative analysis used group mean scores, percentages of the maximum score, absolute changes between stages, and relative changes compared with baseline. For clarity, absolute change was calculated as the later-stage mean minus the baseline or preceding-stage mean, whereas relative change from baseline was calculated as $(\text{Cycle II mean} - \text{baseline mean}) / \text{baseline mean} \times 100$. Qualitative analysis summarized learner response patterns, teacher challenges, and reflection outcomes. Fidelity monitoring was used to determine whether key SOP components were implemented. Interpretation was supported through triangulation of observations, token monitoring, teacher interviews, and reflections. Student identities were coded as P01–P12.

Table 1. Structure of attention indicators.

Dimension	Item	Behavioral focus
Attention Orientation	1–3	Directing attention to the teacher, media, and English language examples
Sustained attention	4–6	Maintaining focus and listening to instructions
Task engagement	7–10	Initiating, sustaining, and utilizing time for tasks
Response to instruction	11–13	Responding to and following instructions and activity transitions
Active participation	14–16	Answering, practicing, and participating in pairs/groups
Distraction control	17–19	Minimizing unrelated conversation/distractions and returning to the task
Self-regulation	20	Refocusing attention after a break or change in activity

RESULT AND DISCUSSION

Finding

1. Pre-Intervention: Attention Baseline

Table 2. Individual baseline scores for P01–P12.

Participant	Pre-intervention	Average/item	% of maximum
P01	43	2.15	53.8%
P02	44	2.20	55.0%
P03	40	2.00	50.0%
P04	43	2.15	53.8%
P05	42	2.10	52.5%
P06	49	2.45	61.3%
P07	41	2.05	51.2%
P08	44	2.20	55.0%
P09	42	2.10	52.5%
P10	51	2.55	63.7%
P11	40	2.00	50.0%
P12	48	2.40	60.0%

Initial observations showed that students' total scores ranged from 40 to 51 out of a maximum of 80, with a mean of 43.92 (54.9% of the maximum score). This baseline indicates that attentive behavior was present but inconsistent. Individual differences were also evident: P10 scored 51, whereas P03 and P11 scored 40. Some students required reinforcement of basic focus, while others needed more support to sustain the behavior.

Table 3. Profile of the seven dimensions of attention at pre-intervention.

Dimension	Mean/item	% of maximum	Interpretation
Attention Orientation	2.56	64.0%	Initial orientation is evident but not yet uniform.
Sustained attention	2.17	54.2%	Sustaining focus still requires reinforcement.
Task engagement	2.21	55.2%	Initiating and maintaining tasks is not yet consistent.
Response to instruction	2.08	52.0%	Responses to instructions vary.
Active participation	2.17	54.2%	Active participation is not yet evenly distributed.
Distraction control	2.06	51.5%	Managing distractions and returning to the task are key areas of focus.
Self-regulation	2.00	50.0%	Readiness to refocus still requires support.

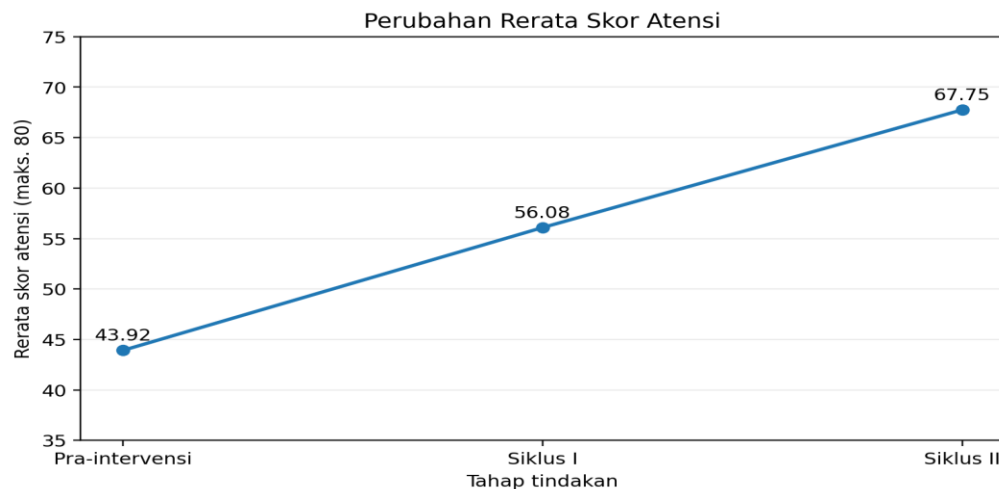


Figure 1. Changes in mean attention scores from pre-intervention to Cycle II.

Theoretically, this baseline pattern aligns with the view that attention involves orientation and executive control, rather than merely the ability to “see” material (Petersen & Posner, 2012). In English language learning, such control is essential for retaining verbal information, following sequential instructions, waiting for one's turn to speak, and returning to the task after a distraction. Consequently, an operational definition that breaks attention down into 20 indicators provides a more robust basis for assessment than a global evaluation.

2. Cycle I: Token Economy Implementation and Initial Changes

Cycle I involved the direct application of a token economy within English language activities. Tokens were awarded immediately upon the occurrence of the target behavior, accompanied by specific praise and documentation. Monitoring across five sessions revealed token totals of 31, 36, 42, 47, and 44, respectively. This pattern indicates that the intensity of reinforcement increased during the initial phase—as the teacher established the link between behavior and consequences—before becoming more selective by the fifth session. The number of token exchanges rose from 4 to 8, descriptively demonstrating that the learners were beginning to understand the reward system.

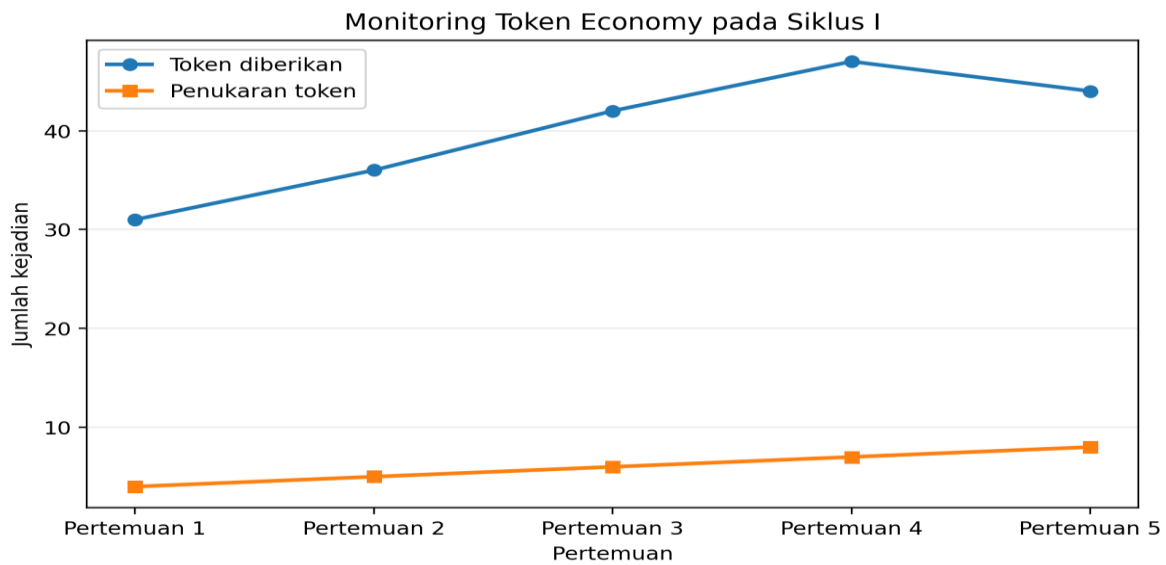


Figure 2. Monitoring of the number of tokens awarded and tokens exchanged during Cycle I.

Table 4. Changes in individual scores from pre-intervention to Cycle I

Participant	Pre-test	Cycle I	Δ	% of Cycle I maximum
P01	43	50	7	62.5%
P02	44	52	8	65.0%
P03	40	54	14	67.5%
P04	43	55	12	68.8%
P05	42	56	14	70.0%
P06	49	56	7	70.0%
P07	41	56	15	70.0%
P08	44	57	13	71.2%
P09	42	58	16	72.5%
P10	51	59	8	73.8%
P11	40	60	20	75.0%
P12	48	60	12	75.0%

The average attention score rose from 43.92 at baseline to 56.08 in Cycle I, an absolute increase of 12.16 points, equivalent to approximately 27.69% relative to baseline. This descriptive improvement coincided with the initial implementation of the token economy. However, because the activity had no comparison condition and involved only 12 learners in one setting, the change cannot be interpreted as a causal estimate of intervention effectiveness. Cycle I findings were therefore used primarily to identify implementation issues and refine the next cycle.

Table 5. Fidelity and reflection results of Cycle I

SOP Components	Cycle I Results	Implications of reflection
Target behavior defined	Implemented	To be maintained
Token delivered immediately after behavior	Generally implemented; some instances required reminders	Need to improve timeliness
Specific praise	Mostly implemented	Need to be more consistent and explicit
Token recording	Implemented	To be maintained

SOP Components	Cycle I Results	Implications of reflection
Exchange according to menu	Implemented	To be maintained
Fading	Implementation initiated	Needs to be designed more systematically for Cycle II

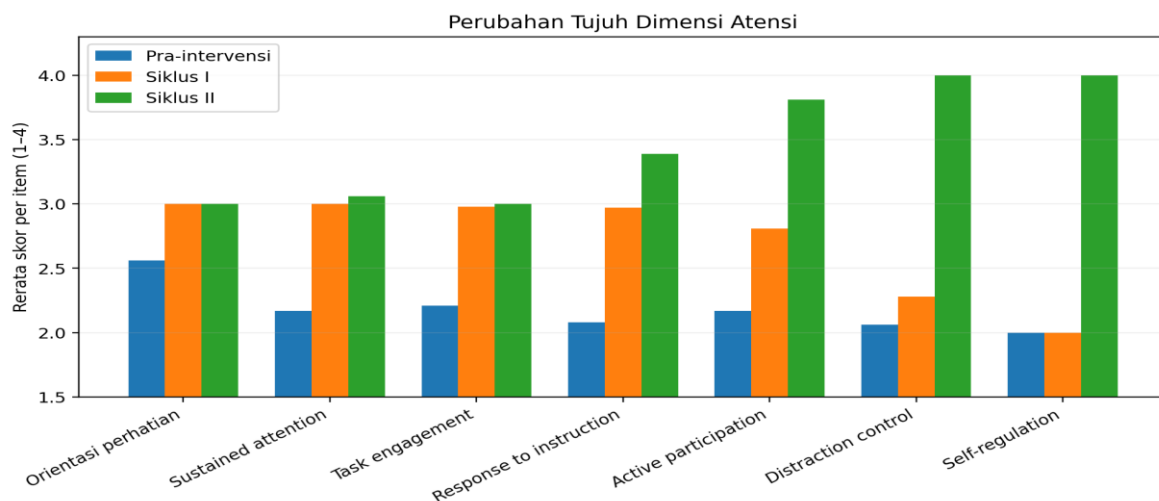


Figure 3. Changes in the seven dimensions of attention across three stages of intervention.

The dimensions with relatively low scores in Cycle I were distraction control (2.28/4) and self-regulation (2.00/4). This is significant because excessively frequent token delivery carries the risk of causing students to wait for external consequences. Consequently, the reflection for Cycle I did not focus on "adding more rewards," but rather on clarifying target behaviors, improving the precision of token delivery, increasing social praise, and beginning to gradually reduce token frequency.

3. Cycle II: Token Selectivity and Fading

Cycle II served as an improvement phase based on the findings from Cycle I. The intervention was guided by three principles: making token delivery more selective, making social praise more explicit, and encouraging students to maintain behavior even when not every response earned a token. Activities continued to incorporate relevant English language requirements, but reinforcement focused on behaviors with functional learning value: listening to instructions, responding, completing tasks, participating, refocusing, and following transitions.

Table 6. Changes in individual scores from Cycle I to Cycle II

Participant	Cycle I	Cycle II	Δ	% of Cycle II maximum
P01	50	64	14	80.0%
P02	52	65	13	81.2%
P03	54	66	12	82.5%
P04	55	66	11	82.5%
P05	56	67	11	83.8%
P06	56	67	11	83.8%
P07	56	68	12	85.0%
P08	57	69	12	86.2%
P09	58	69	11	86.2%

Participant	Cycle I	Cycle II	Δ	% of Cycle II maximum
P10	59	70	11	87.5%
P11	60	70	10	87.5%
P12	60	72	12	90.0%

The average score increased from 56.08 in Cycle I to 67.75 in Cycle II, an absolute increase of 11.67 points. Compared with the baseline mean of 43.92, the total increase was 23.83 points, corresponding to approximately 54.26% relative to baseline. All 12 participants showed higher scores across the intervention stages. These results describe a consistent pattern of improvement within this group, but they should not be interpreted as proof of causality or generalized effectiveness.

Table 7. Changes in the seven dimensions of attention

Dimension	Pre-Intervention	Cycle I	Cycle II	Δ Pre→II
Attention	2.56	3.00	3.00	0.44
Orientation	2.17	3.00	3.06	0.89
Sustained attention	2.21	2.98	3.00	0.79
Task engagement	2.08	2.97	3.39	1.31
Response to instruction	2.17	2.81	3.81	1.64
Active participation	2.06	2.28	4.00	1.94
Distraction control	2.00	2.00	4.00	2.00
Self-regulation				

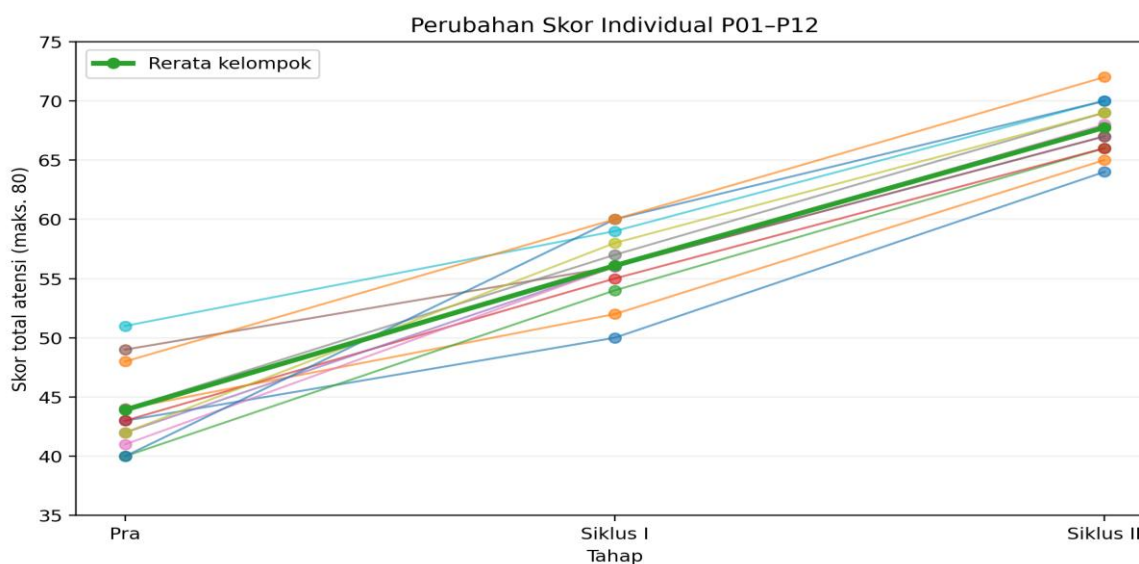


Figure 4. Changes in individual scores (P01–P12) and group means.

Discussion

Why Does Change Occur?

First, change can be understood through reinforcement mechanisms. A token economy links targeted behaviors to predictable positive consequences. When learners receive a token immediately after demonstrating the target behavior, the connection between

the action and the consequence becomes clearer. Kim et al. (2022) demonstrated that token economies in educational settings can yield significant effects, though system components—such as the type of reinforcer, token rate, and exchange rules—may vary based on classroom characteristics. These findings underscore the importance of not merely "distributing tokens" but designing a clear and consistent system.

Second, changes in response to instruction and task engagement can be linked to behavioral specificity. Learners are not given vague directives to "focus more"; instead, they are guided toward observable responses, such as facing the teacher, listening to instructions until the end, promptly retrieving materials, and commencing the task. This approach renders the consequences more informative. A review by Royer et al. (2019) indicates that behavior-specific praise can increase time-on-task and reduce inappropriate behaviors. Thus, specific praise within the PKM framework serves as a bridge between the token and the learner's understanding of which behaviors should be maintained.

Third, increased active participation is crucial in English language learning because attention is not merely a receptive process; learners must listen, respond, imitate, read, speak, and work with partners. Research by Salma and Prasetyawati (2023) involving a single subject demonstrated that combining shaping and a token economy could increase the duration of on-task behavior and attentional capacity. While these findings cannot be directly generalized to LKP Endemic due to differences in context and design, they provide conceptual support for the idea that structured reinforcement can target specific attentive behaviors.

Fourth, changes in distraction control and self-regulation observed during Cycle II highlight the importance of fading. If tokens are awarded for every correct response or instance of focused behavior, learners may come to expect them. Conversely, when token delivery becomes selective—while social praise continues—learners have the opportunity to practice behaviors without the constant presence of a tangible consequence. This principle aligns with Zimmerman's (2002) perspective on self-regulated learning, which positions the learner as an active agent in directing their behavior toward learning goals.

Fifth, the activity outcomes must be interpreted in conjunction with implementation fidelity. Behavioral change depends not only on the design of the token economy but also on whether the teacher awards tokens promptly, specifically identifies the target behavior, records tokens, and consistently applies exchange rules. A study by Maggin et al. (2011) highlights the importance of methodological quality and implementation variability when evaluating token economies. Thus, reporting on fidelity in this article is not merely an administrative formality but a crucial component in explaining the mechanism of action.

Sixth, the results indicate that a token economy is best positioned as a behavior management strategy integrated with instruction, rather than a substitute for high-quality English language teaching. Tokens cannot replace clear instruction, proficiency-appropriate materials, communicative activities, or positive teacher-student relationships. The added value of a token economy lies in providing consistent consequences for the learning behaviors necessary for instruction to proceed effectively.

Seventh, the findings also suggest limitations regarding interpretation. Score improvements may have been influenced by familiarity with the assessment instruments, experience gained during the activities, changes in instructional materials, teacher attention, or other factors present across the two cycles.

Overall, the practical contribution of the activity lies in converting the token economy into a manageable classroom procedure: target behaviors are defined in observable terms, tokens are delivered contingently, praise identifies the behavior, implementation is monitored, and reinforcement is gradually faded. This sequence can be adapted to other non-formal English-learning settings, provided that the target behaviors, exchange rules, and fading criteria are adjusted to the local context.

Table 8. Practical Implications for English Language Learning at Private Training Centers (LKP)

Stage	Recommended Practices	Monitored Indicators
Pre-instruction	Describe 2–3 target behaviors using simple language	Learner can state/demonstrate target behaviors
During instruction	Use brief instructions and check for attentional focus	Orienting, attending, following instructions
During the task	Provide tokens immediately for target behaviors; accompany with specific praise	Initiating, sustaining, and completing tasks
During pair activities	Reinforce listening and turn-taking	Participation and distraction control
During transitions	Use brief prompts, then fade assistance	Following transitions between stages
Fading stage	Gradually reduce tokens; maintain social praise	Behavior occurs without waiting for a token

CONCLUSION

Pre-intervention data established a baseline of inconsistent attention among the 12 learners across seven observed behavioral dimensions, with a mean score of 43.92/80. The lowest baseline areas were self-regulation, distraction control, response to instruction, and sustained attention. Implementation of the token economy in Cycle I was accompanied by an increase in the group mean to 56.08/80, while reflection identified the need for more timely token delivery, more consistent behavior-specific praise, and a more systematic fading strategy. After these refinements, the Cycle II mean reached 67.75/80, representing a 23.83-point increase from baseline. The largest descriptive gains occurred in response to instruction, active participation, distraction control, and self-regulation. Taken together, the activity indicates that a token economy can be practically integrated into English instruction as a structured reinforcement procedure when target behaviors are explicit, tokens are delivered contingently, praise is behavior-specific, implementation is monitored, and reinforcement is gradually faded. Because the activity used a small, single-site group without a comparison condition, the results should be interpreted as local descriptive evidence rather than a causal estimate of effectiveness.

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