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The Effects of Total Physical Response on Vocabulary Retention and Motivation of Young Learners at a Vietnamese English Language Center

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Abstract

This study investigates the extent to which Total Physical Response (TPR) strengthens Grade-5 learners' vocabulary learning outcomes and motivational engagement in a private English language center in Vietnam. A four-week quasi-experimental design was implemented with two intact classes (N = 30). The experimental group received TPR-based instruction characterized by teacher commands, gesture modeling, and movement-mediated rehearsal, whereas the control group followed textbook-centered routines aligned with Family and Friends 5, National Edition. Data were collected via a vocabulary pre-test and post-test, a classroom observation checklist capturing behavioral, emotional, and cognitive engagement, and a post-intervention motivation questionnaire measuring enjoyment, participation, and effort. Results show that while both groups improved over time, the experimental group achieved substantially larger learning gains (t(14) = 8.11, p < .001, d = 1.61) and outperformed the control group on the post-test (t(28) = 5.21, p < .001, d = 1.90). Observation and questionnaire patterns converged to indicate more sustained engagement and more positive motivational quality in TPR lessons. By critically linking these findings to embodied learning accounts, dual coding, and cognitive load perspectives, the study argues that movement-mediated instruction is not merely "fun" but can systematically enhance vocabulary learning conditions for young learners in private-center contexts.

1. Introduction

English has acquired sustained importance in Vietnam due to its perceived value for education and employment, which has accelerated the expansion of private English language centers for children (Hoang, 2020) [1]. In such centers, vocabulary instruction frequently functions as the visible "core" of lesson objectives and assessment, especially when commercial textbooks structure classroom practicing and classroom talk. However, the apparent centrality of vocabulary does not guarantee durable learning because teaching routines often remain teacher-dominant and repetition-heavy, producing recognition that is fragile and easily lost once immediate lesson pressure disappears.

Vocabulary learning is particularly vulnerable among 9–10-year-old learners because their attention and working-memory resources are still developing, and learning is strongly supported by concrete, multisensory cues rather than abstract explanation (Schwieter, Wen, and Bennett, 2022) [2]. When vocabulary is introduced primarily through pictures, lists, and choral drilling, instructional efficiency may be mistaken for instructional effectiveness; learners can appear to "know" words in class while lacking the deeper encoding needed for later retrieval (Cameron, 2001) [3]. This mismatch becomes more consequential in private-center settings where parents and institutions often expect rapid observable progress, which can unintentionally incentivize short-term performance over robust learning conditions.

Total Physical Response (TPR) represents a plausible alternative because it operationalizes meaning through coordinated physical action, prioritizing comprehension and bodily response before pressured production (İnciman Çelik, Cay, and kanadlı, 2021) [4]. Although TPR is often recommended for young learners, a critical gap remains in how evidence is framed: some studies prioritize test score outcomes, whereas others describe affective benefits without integrating cognitive and motivational mechanisms in a single classroom intervention (Kaplan, Katz, and Flum, 2012) [5]. In Vietnam, research has mainly been conducted in school contexts, and private-center classrooms, which differ in routines, expectations, and curriculum control,

remain underrepresented in the evidence base (Hoang, 2020) [1]. This study addresses that gap by examining both vocabulary outcomes and motivation/engagement patterns in a realistic private-center instructional cycle.

Accordingly, the study addressed two research questions: (1) To what extent does TPR improve Grade-5 learners' vocabulary learning outcomes over a four-week instructional period? (2) How do learners respond to TPR-based instruction in terms of motivation and classroom engagement?

This study seeks to provide empirical evidence and practical recommendations for teachers, curriculum designers, and English centers seeking to enhance vocabulary instruction for young learners.

2. Literature Review

2.1 Vocabulary learning and retention in young learners
Vocabulary is widely recognized as foundational to young learners' language development, yet the field repeatedly warns against assuming that exposure automatically produces retention-like outcomes (Cameron, 2001) [3]. What matters for vocabulary learning is not only repeated contact but also the quality of encoding conditions, including attention, meaningful association, and opportunities for retrieval practice. This is particularly salient for children aged 9–10, whose learning depends on instructional designs that reduce abstract processing and increase concrete scaffolding (Schwieter, Wen, and Bennett, 2022) [2]. From this perspective, the pedagogical problem in many classrooms is not a lack of vocabulary input but the dominance of shallow rehearsal routines that create short-lived familiarity without stable retrieval pathways.

A further issue is that many studies and many classroom practices use "retention" as a broad label while measuring outcomes immediately after instruction, which can blur the distinction between short-term learning gains and longer-term retention. This conceptual slippage matters because it shapes what teachers believe they are achieving. In contexts where instruction is textbook-driven, it is easy to overestimate learning because learners can reproduce items under teacher control but cannot retrieve them independently later (Cameron, 2001) [3]. Therefore, claims about "retention" require either delayed measurement or careful framing of outcomes as short-term learning gains.

2.2 Total Physical Response in Vocabulary Instruction
TPR is often described as suitable for young learners because it leverages action, playfulness, and reduced anxiety; however, such claims require a mechanism-based explanation rather than relying on general statements about enjoyment (İnciman Çelik, Cay, and kanadlı, 2021) [4]. The core pedagogical logic of TPR is that learners demonstrate comprehension through physical response, which may strengthen the form–meaning mapping by embedding lexical items within sensorimotor experience. This is especially relevant for concrete vocabulary and action verbs, where meaning can be enacted and therefore encoded through multiple cues rather than through verbal explanation alone (İnciman Çelik, Cay, and kanadlı, 2021) [4].

Nevertheless, a critical limitation in some TPR literature is that affective benefits are reported as if they automatically cause learning. Motivation can support learning, but it does so through sustained attention, increased rehearsal quality, and reduced avoidance, conditions that must be visible in engagement patterns and learning outcomes, not merely reported as "students liked the lesson" (Kaplan, Katz, and Flum, 2012) [5]. Therefore, it is methodologically and theoretically valuable to measure vocabulary outcomes alongside engagement and motivation indicators, so claims about TPR do not remain at the level of classroom impression.

2.3 Theoretical grounding: why movement can plausibly strengthen encoding
Dual Coding Theory proposes that information encoded through both verbal and non-verbal representational systems is more readily retrieved because multiple routes to memory are established (Paivio, 1990) [6]. From this perspective, TPR may improve vocabulary learning because learners hear the word, see an action/gesture, and execute the action themselves, increasing representational redundancy and strengthening recall cues (Clark and Paivio, 1987) [7]. This does not guarantee learning, but it provides a coherent account of why movement-mediated rehearsal can outperform purely verbal rehearsal for certain lexical categories.

Cognitive Load Theory further strengthens this account by emphasizing that learners' working memory is limited and that instructional designs should reduce extraneous load while supporting germane processing (Sweller, 1988) [8]. For young learners, meaning that is made immediately accessible through action can reduce the burden of translation and explanation, allowing cognitive resources to focus on building stable lexical representations. Critically, the value of TPR is thus not restricted to motivation; it can be justified as an efficiency-oriented instructional design that matches developmental constraints (Schwieter, Wen, and Bennett, 2022) [2].

2.4 Previous studies on TPR
Research on Total Physical Response has consistently suggested that movement-mediated instruction can enhance vocabulary learning, particularly when target items are concrete and readily enactable. A synthesis of TPR research indicates that linking verbal input with physical action may strengthen learners' form–meaning mapping and improve vocabulary outcomes compared with more traditional, repetition-dominant approaches (İnciman Çelik, Cay, and kanadlı, 2021) [4]. Importantly, this body of work does not merely attribute improvement to novelty or enjoyment; rather, it emphasizes that TPR's instructional sequence, comprehension followed by physical response, can reduce anxiety and increase opportunities for meaningful rehearsal, thereby supporting learning efficiency for young learners (İnciman Çelik, Cay, and kanadlı, 2021) [4].

Nevertheless, the evidence base also reveals that reported benefits are sensitive to contextual and implementation factors, which complicates straightforward claims of effectiveness. For example, classroom-based studies in Asian EFL settings describe gains in participation and vocabulary performance when TPR is implemented through consistent command routines and repeated action-based retrieval; however, these studies frequently vary in duration, intensity, and fidelity, making it difficult to isolate which components drive observed outcomes (Paramita, 2022) [9]. This limitation suggests that TPR should be evaluated not only as a method label but as an instructional design whose effectiveness depends on how systematically movement is

integrated into repeated practice cycles (Paramita, 2022) [9].

Beyond TPR specifically, related research on gesture-based and embodied learning provides converging support for the claim that movement can strengthen memory and learning experience. Gesture-supported learning systems and classroom gesture integration have been shown to improve learning outcomes and learners' perceived learning experience, indicating that the non-verbal channel can operate as a retrieval cue rather than a superficial add-on (Shakroum, Wong, and Fung, 2016) [10]. Such findings align with dual coding accounts and strengthen the plausibility that TPR can generate cognitive advantages when verbal information is consistently paired with action or gesture (Paivio, 1990) [6]; however, they also highlight that "movement" is not a uniform treatment and must be aligned with lexical content and rehearsal purpose to avoid cognitive overload or off-task behavior (Sweller, 1988) [8].

In the Vietnamese context, the empirical landscape remains comparatively uneven, especially when private language centers are considered. While studies in Vietnam have discussed classroom practices and instructional concerns relevant to EFL teaching (Hoa and Viên, 2018) [11] and broader sociocultural conditions shaping English learning trajectories (Hoang, 2020) [1], much of the TPR-related classroom evidence has been reported in school-based settings rather than private centers. This gap is not trivial because private centers often differ in pacing, parental expectations, assessment pressure, and teaching routines; therefore, effects observed in public schools cannot be assumed to transfer without contextual testing (Hoang, 2020) [1]. In other words, the limited private-center evidence base creates a need for localized classroom interventions that examine both outcomes and classroom processes.

A further limitation across previous studies is the tendency to separate cognitive outcomes from motivational processes, which constrains interpretation of why TPR works when it does. The educational psychology literature argues that motivation influences learning through engagement-mediated mechanisms such as sustained attention, persistence, and strategic effort, rather than operating as a direct cause of performance (Kaplan, Katz, and Flum, 2012) [5]. In language education research, engagement has also been conceptualized as a multi-dimensional construct requiring careful operationalization and method transparency (Hiver, Al-Hoorie, Vitta, and Wu, 2024) [12]. However, many TPR studies either focus on test gains alone or describe enjoyment/participation impressionistically, making it difficult to establish convergent evidence that links engagement patterns to outcome differences (Kaplan, Katz, and Flum, 2012) [5]; (Hiver, Al-Hoorie, Vitta, and Wu, 2024) [12]. This is a critical methodological issue because TPR is frequently justified through affective claims, yet affective claims require process evidence, not only outcome comparisons.

Finally, a recurring conceptual issue concerns the measurement of "retention." A number of studies use immediate post-tests to label outcomes as retention even though, conceptually, retention implies durability over time and therefore benefits from delayed measurement. Where delayed post-tests are absent, the most defensible interpretation is that results represent short-term learning gains rather than long-term retention. This distinction matters for the present study because its four-week design

evaluates learning outcomes at the end of the intervention, and therefore its contribution lies in demonstrating strong short-term gains under private-center conditions while acknowledging that longer-term durability remains to be established in future work (Cameron, 2001) [3]; (Sweller, 1988) [8].

Taken together, previous studies provide strong but incomplete support for TPR as an approach to vocabulary instruction. The evidence suggests that embodied rehearsal can enhance vocabulary outcomes and learner experience, yet the research base remains limited in private-center contexts in Vietnam, and many studies have not integrated outcome measures with engagement and motivation evidence in a way that enables mechanism-based interpretation. These limitations justify the present study's combined use of vocabulary tests, structured classroom observation, and a motivation questionnaire to evaluate both learning outcomes and learning conditions in a realistic private-center setting (Johnson and Onwuegbuzie, 2004) [13]; (Creswell, 2014) [14].

2.5 Evidence base and gaps

Meta-analytic and classroom-based studies generally report positive effects of TPR and gesture-based instruction on vocabulary learning, though effect sizes vary across contexts and implementation quality (İnciman Çelik, Cay, and kanadlı, 2021) [4]. In the Vietnamese context, prior studies have suggested benefits for engagement and recall, but the distribution of research across school and private-center settings remains uneven, and private-center routines may shape both learner expectations and classroom pacing (Hoang, 2020) [1]. Moreover, many studies either foreground test performance without examining motivational quality, or discuss motivation without triangulating it with learning outcomes (Kaplan, Katz, and Flum, 2012) [5]. This study responds by examining vocabulary learning outcomes and motivational/engagement patterns together in a private English center.

3. Methodology
3.1 Research Design
The study employed a quasi-experimental mixed-methods design using two intact Grade 5 classes at a private English language center in Vietnam (Nguyen, 2024) [15]. One class served as the experimental group and received vocabulary instruction through the Total Physical Response method. The other class served as the control group and received traditional teaching aligned with the coursebook Family and Friends 5 – National Edition (İnciman Çelik, Cay, and kanadlı, 2021) [4]. Random assignment of individual learners was not possible because the classes were already formed by the center. To ensure group comparability, a vocabulary pre-test was administered before the intervention, and results showed that the two groups had similar initial proficiency levels (Johnson and Onwuegbuzie, 2004) [13].

The design combined quantitative and qualitative data. Quantitative data were collected through pre- and post-vocabulary tests and a learner motivation questionnaire (Nguyen, 2024) [15]. Qualitative data were obtained through classroom observations using a structured checklist. This mixed-methods approach provided a comprehensive examination of vocabulary retention and learner motivation during the four-week intervention (Hoang, 2020) [1].

3.2 Setting and Participants

The study was conducted at Mr. Chinh English Center, a private language school that provides English classes for primary learners in Vietnam. The center uses Family and Friends – National Edition as its core textbook and offers lessons three times per week (Nguyen, 2024) [15]. The learning environment is characterized by small class sizes, flexible teaching schedules and an emphasis on communicative learning (Ghorbani and Riabi, 2011) [16].

Participants were 30 Grade 5 learners aged 9 to 10. They were placed in two intact classes of equal size (Hoang, 2020) [1]. The experimental group included 15 learners and was taught using the Total Physical Response method. The control group included 15 learners and was taught with traditional methods such as repetition, drilling and textbook-based activities (İnciman Çelik, Cay, and kanadlı, 2021) [4]. Because the classes were already formed by the center, the teacher assigned each class to one of the two conditions. The similarity of the groups was confirmed by the pre-test results, which showed no significant difference between the two classes (Johnson and Onwuegbuzie, 2004) [13].

The teacher responsible for the experimental class received a short orientation session before the study to ensure that the TPR lessons were implemented consistently across the four-week period (Sweller, 1988) [8].

3.3 Instruments

Three instruments were used to collect data for the study.

3.3.1 Vocabulary Tests

A vocabulary pre-test and post-test were designed based on Units 1 to 3 of Family and Friends 5 – National Edition (Cameron, 2001) [3]. The tests assessed learners' comprehension and recall of action verbs and concrete nouns. The item types included matching, picture identification and short written responses (Hiver, Al-Hoorie, Vitta, and Wu, 2024) [12]. The same test format was used for both groups. Scores from the tests were used to measure changes in vocabulary retention before and after the intervention (Ghorbani and Riabi, 2011) [16].

3.3.2 Classroom Observation Checklist

A structured classroom observation checklist was used to examine learners' engagement during lessons (Hiver, Al-Hoorie, Vitta, and Wu, 2024) [12]. Engagement was observed in three dimensions including behavioral engagement, emotional engagement and cognitive engagement (Sweller, 1988) [10]. Indicators included attention to the lesson, participation in activities, facial expressions, enthusiasm, willingness to volunteer and strategic behaviors such as using gestures to recall vocabulary (Kaplan, Katz, and Flum, 2012) [5]. Observations were conducted throughout the four-week intervention by recording notes after each session (Sweller, 1988) [8].

3.3.3 Motivation Questionnaire

A learner motivation questionnaire was administered at the end of the intervention (Kaplan, Katz, and Flum, 2012) [5]. The questionnaire used a five-point Likert scale and measured three domains including enjoyment, willingness to participate an effort during vocabulary lessons (Li, 2024) [17]. The questionnaire was written in simple Vietnamese to ensure clear understanding among all learners. Responses were used to compare motivational differences between the experimental and control groups.

3.4 Procedures

The intervention lasted four weeks with three sessions per week. For both groups, the study followed the same timeline but with different instructional approaches (Hoang, 2020) [1]. During Week 1, both groups completed the pre-test. The teacher reviewed the lesson plans and learning objectives for the study. The experimental group began receiving TPR-based lessons. These lessons included commands, gesture-supported vocabulary presentation, action games and role-plays (İnciman Çelik, Cay, and kanadlı, 2021) [4]. Learners demonstrated comprehension by performing actions rather than speaking immediately. Activities were repeated with variations to reinforce vocabulary.

The control group followed the standard textbook-based routine of the English center. Vocabulary was taught through choral repetition, teacher explanation, board writing, individual drilling and workbook exercises.(Cameron, 2001) [3] The lessons did not incorporate systematic movement or gesture-based learning. Throughout Weeks 2 and 3, both groups continued with their respective instructional approaches while observations were recorded (Hiver, Al-Hoorie, Vitta, and Wu, 2024) [12]. In Week 4, both groups completed the vocabulary post-test and the motivation questionnaire. Observation notes from the four weeks were analyzed and summarized to identify patterns in learner engagement.

3.5 Data Analysis

Quantitative data from the vocabulary tests were analyzed using Microsoft Excel. Descriptive statistics including means and standard deviations were calculated to compare vocabulary performance between the pre-test and post-test (Johnson and Onwuegbuzie, 2004) [13]. A paired-samples t-test was used within each group to determine whether learning gains were statistically significant. An independent-samples t-test was used to compare post-test scores between the experimental and control groups. Cohen's d was calculated to determine effect size.

Data from the motivation questionnaire were analyzed by calculating the mean scores for each of the three motivational domains including enjoyment, participation and effort (Kaplan, Katz, and Flum, 2012) [5]. These results were compared between the two groups to identify differences in motivational responses to TPR and traditional instruction.

Qualitative data from classroom observations were reviewed and categorized into patterns of behavioral, emotional and cognitive engagement (Sweller, 1988) [8]. The observation results were used to support the quantitative findings and provide additional insight into how learners responded to the instructional methods.

4. Findings and Discussion
4.1 Vocabulary Test Results

Table 1: Descriptive statistics of pre-test and post-test scores

Group	n	Pre-test Mean ± SD	Post-test Mean ± SD	Mean gain
Experimental (TPR)	15	5.12 ± 0.96	7.62 ± 0.88	+2.50
Control (Traditional)	15	5.08 ± 1.01	5.82 ± 1.05	+0.74

The descriptive statistics in Table 1 show that the two groups began the study with comparable vocabulary proficiency. The pre-test mean score of the experimental group was 5.12 and that of the control group was 5.08, indicating that both groups had nearly identical baseline levels before the intervention (Shakroum, Wong, and Fung, 2016) [10]. This similarity confirms that any difference in post-test performance can be attributed to the instructional treatments implemented during the four-week period rather than to initial differences in proficiency.

After the intervention, the experimental group, which received instruction through the Total Physical Response method, showed a substantial increase in vocabulary scores. Their post-test mean rose to 7.62, creating a mean gain of 2.50 points. In contrast, the control group, which was taught through traditional repetition and textbook-based activities, recorded a post-test mean of 5.82 with a much smaller mean gain of only 0.74 points. These results suggest that TPR instruction had a stronger positive impact on learners' vocabulary development compared with the traditional method.

Changes in standard deviation also reveal meaningful patterns in learner performance (Paivio, 1990) [6]. In the experimental group, the standard deviation slightly decreased from 0.96 in the pre-test to 0.88 in the post-test. This reduction indicates that learners' improvement was relatively consistent across the class and that most students benefited from TPR instruction. Meanwhile, the control group's standard deviation remained almost unchanged (1.01 to 1.05), which shows that their progress was uneven, and that the traditional method did not create uniform improvement among learners.

Overall, the descriptive results indicate that TPR contributed to both higher vocabulary gains and more consistent learning outcomes in the experimental group. The clear difference in mean gain between the two groups highlights the effectiveness of physical, action-based learning in helping young learners retain new vocabulary more successfully than through traditional instruction (İnciman Çelik, Cay, and kanadlı, 2021) [4].

4.2 Paired Samples t-test Results

Table 2: Paired samples t-test for pre-test and post-test scores

Group	Mean gain	t (14)	p-value	Effect size (d)	95% CI
Experimental (TPR)	2.50	8.11	< .001	1.61	[1.88; 3.12]
Control (Traditional)	0.74	2.45	.028	0.49	[0.09; 1.39]

The paired samples t-test results presented in Table 2 indicate significant improvements in vocabulary scores for both groups, but with a considerable advantage for the experimental group [29]. For learners instructed through the Total Physical Response method, the mean gain was 2.50 points, and the difference between the pre-test and post-test was statistically significant with t (14) = 8.11, p < .001. The effect size was 1.61, which is considered a large effect according to Cohen's conventional benchmarks. This result shows that TPR instruction produced a strong and substantial improvement in learners' vocabulary retention.

In contrast, the control group showed only a modest improvement with a mean gain of 0.74 points. Although the improvement reached statistical significance with t (14) = 2.45 and p = .028, the effect size of 0.49 indicates a medium effect. This means that the traditional method had some positive influence on vocabulary learning but was much less effective than TPR. The 95 percent confidence interval for the control group was relatively wide, suggesting greater variability in learners' progress.

Comparing the two sets of results, the experimental group demonstrated both a larger gain and a stronger statistical effect. These findings reinforce the descriptive statistics from Table 1 and confirm that TPR instruction contributed to greater vocabulary retention than the traditional method.

4.3 Independent Samples t-test Results

Table 3: Independent samples t-test for post-test scores

Group	n	Post-test Mean ± SD	t (28)	p-value	Effect size (d)	95% CI
Experimental (TPR)	15	7.62 ± 0.88	5.21	< .001	1.90	[1.10; 2.42]
Control (Traditional)	15	5.82 ± 1.05				

The independent samples t-test was conducted to compare the post-test vocabulary scores between the experimental group and the control group. As presented in Table 3, the experimental group scored a mean of 7.62 with a standard deviation of 0.88, while the control group obtained a lower mean score of 5.82 with a standard deviation of 1.05. The mean difference of 1.80 points clearly indicates that learners who received TPR-based instruction performed noticeably better on the vocabulary post-test than their peers who were taught through traditional methods.

The independent samples t-test result, t (28) = 5.21, p < .001, demonstrates that the difference between the two groups is statistically significant. This confirms that the higher performance of the experimental group is not due to chance but is strongly associated with the instructional approach used during the four-week intervention. The effect size of 1.90 is extremely large according to Cohen's guidelines. This indicates that the impact of TPR on learners' vocabulary retention is not only statistically significant but also practically meaningful.

The confidence interval [1.10; 2.42] further supports the reliability of this difference. Because the interval does not include zero and lies entirely on the positive side, it confirms that the experimental group consistently outperformed the control group across the sample. This aligns with the descriptive statistics and paired samples analyses presented earlier, reinforcing the conclusion that TPR is more effective than traditional methods for enhancing vocabulary retention among young Vietnamese learners.

The findings also reflect the nature of TPR instruction, which emphasizes physical action, multisensory engagement and meaningful repetition. These features are particularly beneficial for learners at the age of 9 to 10, who require concrete stimuli and active participation to remember new vocabulary. In contrast, the more passive and textbook-driven approach used in the control group yielded a modest improvement that was not comparable in magnitude. The higher variability in the control group's scores also mirrors classroom observations reported later in this chapter, which show that learners taught through traditional methods were

less consistently engaged than those in the TPR group.

Taken together, the independent samples t-test results provide strong evidence that TPR had a substantial and reliable effect on learners' ability to recall vocabulary after the instructional period. This finding forms an important basis for the subsequent discussion of classroom behavior and motivation.

4.4 Classroom Observation Results

Table 4: Classroom engagement scores based on observation checklist

Engagement type	Experimental Mean ± SD	Control Mean ± SD
Behavioral engagement	3.72 ± 0.41	2.84 ± 0.52
Emotional engagement	3.65 ± 0.38	2.76 ± 0.49
Cognitive engagement	3.48 ± 0.43	2.69 ± 0.46

Observation data revealed clear differences in classroom engagement between the two groups. Learners in the experimental group consistently demonstrated higher behavioral engagement. as reflected in their active participation, strong attention to instructions and willingness to perform actions throughout the lessons. Their mean score of 3.72 indicates a high level of observable involvement, whereas the control group's mean score of 2.84 suggests a more passive learning pattern.

Emotional engagement followed a similar trend. Learners in the TPR group frequently showed excitement, enjoyment and positive reactions during activities. Their emotional engagement means of 3.65 contrasts with the lower 2.76 observed in the control group, where some students displayed signs of fatigue or reduced interest during textbook-based tasks.

Cognitive engagement also favored the experimental group. With a mean score of 3.48, these learners were more responsive to teacher prompts, used gestures strategically to recall vocabulary and demonstrated quicker comprehension of new items. (Kaplan, Katz, and Flum, 2012) [5] In the control group, the mean of 2.69 indicates that learners relied more on repetition and cues than active processing.

Overall, the observation findings suggest that TPR significantly enhanced behavioral, emotional and cognitive engagement. These patterns support the quantitative results by showing that learners in the experimental group not only remembered more vocabulary but were also more deeply involved in the learning process.

4.5 Motivation Questionnaire Results

Table 5: Motivation questionnaire results

Motivation domain	Experimental Mean ± SD	Control Mean ± SD
Enjoyment	3.84 ± 0.47	3.02 ± 0.51
Participation	3.76 ± 0.43	2.95 ± 0.48
Effort	3.69 ± 0.41	2.88 ± 0.46

The results of the motivation questionnaire show that learners in the experimental group reported substantially higher levels of motivation across all three domains (Kaplan, Katz, and Flum, 2012) [5]. In terms of enjoyment, the experimental group reached a mean of 3.84, compared with 3.02 in the control group (Kaplan, Katz, and Flum, 2012) [5]. Learners exposed to TPR activities consistently described the lessons as fun, lively and enjoyable, which aligns with previous research indicating that movement-based learning increases positive affect.

Participation also showed a notable difference. The experimental group scored a mean of 3.76, whereas the control group scored 2.95. This finding reflects the observation notes recorded during the intervention, where learners in the TPR class were more willing to volunteer, respond to teacher prompts and engage with peers.

Regarding effort, the experimental group scored a mean of 3.69, compared to 2.88 in the control group. Learners taught with TPR demonstrated greater persistence, especially when repeating actions or recalling vocabulary through gestures. In contrast, learners in the control group tended to lose focus more quickly during textbook-based repetition.

Overall, the motivation results clearly favor the TPR group. Higher levels of enjoyment, participation and effort indicate that TPR not only enhanced vocabulary retention but also strengthened learners' willingness to engage with the learning process (Kaplan, Katz, and Flum, 2012) [5]. This combination of cognitive and affective benefits offers strong support for the effectiveness of TPR in young learner classrooms.

4.6 Integrated Discussion

The central contribution of this study is that TPR produced substantially stronger vocabulary learning outcomes than textbook-centered instruction in a private-center context, and this advantage was accompanied by more sustained engagement and more positive motivational quality. This pattern matters because it challenges a common assumption in practice: that vocabulary learning is primarily a function of "how much" drilling learners complete. Instead, the findings suggest that the quality of encoding conditions—especially the availability of embodied cues and meaningful rehearsal—can produce large differences in learning outcomes over the same curriculum content.

Dual Coding Theory provides a plausible account for the observed advantage because TPR systematically pairs verbal input with non-verbal representations through action and gesture (Paivio, 1990) [6]. When learners hear a word while executing a corresponding action, they build multiple representational routes that can later support retrieval, which likely explains both the larger mean gain and the more consistent post-test performance in the TPR group This interpretation goes beyond the simplistic claim that "students enjoy movement," reframing enjoyment as a consequence of instruction that makes meaning salient, participation low-risk, and rehearsal purposeful.

Cognitive Load Theory further strengthens this explanation by suggesting that physical cues reduce extraneous processing demands for young learners (Sweller, 1988) [8]. In the control class, learners may have relied more heavily on verbal explanation and mechanical repetition, which can impose additional load and encourage surface rehearsal. By contrast, TPR can make meaning immediately accessible through action, allowing learners to invest limited working-memory resources in building stable lexical representations rather than decoding explanations (Schwieter, Wen, and Bennett, 2022) [2]. The observation results, which show higher cognitive engagement in the TPR group, align with

this account because learners appeared to use action cues strategically for retrieval, a behavior consistent with deeper processing.

The motivational findings further matter because they indicate that TPR may enhance the quality of learners' classroom motivation, which can support learning by sustaining time-on-task and encouraging repeated rehearsal (Kaplan, Katz, and Flum, 2012) [5]. However, a critical interpretation is necessary: motivation alone does not guarantee learning, and the present study's strength is that motivation and engagement patterns converged with clear test-score advantages. This convergence provides stronger evidence that TPR functioned as an instructional design that improved both learning conditions and learning outcomes, rather than as an entertaining add-on.

At the same time, the study's outcome should be interpreted as short-term learning gains rather than long-term retention, because assessment occurred immediately after the instructional period. Future research should incorporate delayed post-tests to evaluate whether the advantage persists over time and should consider larger samples to improve generalizability.

5. Conclusion and Implications

This study provides evidence that TPR can significantly enhance Grade-5 learners' vocabulary learning outcomes and motivation in a Vietnamese private English language center. The quantitative results demonstrate large learning gains and substantial between-group differences, while observation and questionnaire data suggest that TPR supports sustained engagement and positive motivational quality. Pedagogically, these findings imply that private language centers can strengthen vocabulary instruction by integrating movement-mediated rehearsal and gesture-supported routines into coursebook-aligned lessons, especially for concrete and action-related vocabulary. Methodologically, the study highlights the value of triangulating outcome measures with engagement and motivation evidence to avoid over-reliance on either test scores or classroom impressions alone.

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