

(Research) Article

Total Physical Response as an Instructional Strategy for Enhancing Vocabulary Learning Among Young EFL Learners

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Abstract: This study aimed to determine the effectiveness of the Total Physical Response (TPR) method in improving the English vocabulary mastery of young EFL learners at SD Zainul Hasan Genggong, Probolinggo. Employing a quantitative approach with a one-group pre-test and post-test design, the research involved 28 sixth-grade students selected through purposive sampling. Data were collected using a 20-item vocabulary test administered before and after the TPR intervention, and analyzed using descriptive statistics. The findings revealed a significant improvement in students' vocabulary mastery. Prior to the treatment, the pre-test mean score was only 12.50, with most students categorized as poor. Following the implementation of the TPR method, the post-test mean score surged to 88.57, shifting the majority of students into the excellent category. This substantial increase of 76.07 points indicates that integrating physical movements with verbal instructions effectively enhances vocabulary retention and comprehension. In conclusion, the TPR method is highly effective in improving young learners' English vocabulary mastery by transforming passive memorization into an interactive, engaging, and meaningful learning experience.

Keywords: Total Physical Response; Vocabulary Mastery; Young EFL Learners

1. Introduction

English proficiency is a crucial competency in the modern globalized era, serving as a primary medium for education, technology, and international communication. Within the realm of English as a Foreign Language (EFL) learning, vocabulary mastery is widely recognized as the foundational element that dictates a learner's ability to develop the four core language skills: listening, speaking, reading, and writing [1], [2], [3]. Without a robust vocabulary repertoire, learners face significant barriers in comprehending input and producing meaningful output, making vocabulary acquisition a critical priority in early language education.

Despite its importance, empirical evidence indicates that young EFL learners often struggle with vocabulary retention and practical application. In the specific context of SD Zainul Hasan Genggong, initial observations revealed that students' vocabulary achievement was substantially below the minimum mastery criteria, with approximately 70% of learners experiencing difficulties in memorizing word meanings and constructing basic sentences. This phenomenon aligns with recent studies highlighting that many elementary students lack the effective cognitive strategies to acquire and retain new lexical items in conventional classroom settings [1].

This low proficiency is largely attributed to the persistent use of teacher-centered instructional methods that rely heavily on rote memorization and passive learning. When students are merely subjected to decontextualized vocabulary lists without active engagement, their intrinsic motivation declines, and their ability to retain information diminishes significantly [4], [5], [6]. Furthermore, the lack of interactive and varied teaching media renders the learning process monotonous, thereby increasing students' anxiety and reducing their overall interest in mastering the English language.

To address these pedagogical shortcomings, the Total Physical Response (TPR) method offers a highly effective, interactive alternative tailored to the cognitive and physical

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characteristics of young learners. By synchronizing verbal instructions with physical movements, TPR facilitates natural language comprehension and creates a stress-free, engaging learning environment that lowers the affective filter. Recent empirical findings corroborate that integrating physical activity into language instruction significantly enhances students' vocabulary acquisition, memory retention, and active participation in the classroom [7].

Although previous studies have consistently demonstrated the positive impact of TPR on language learning, there remains a need for more rigorous quantitative experimental research focusing specifically on elementary school contexts to solidify its empirical validity. Therefore, this study aims to quantitatively analyze the effectiveness of the TPR method in improving the English vocabulary mastery of young EFL learners at SD Zainul Hasan Genggong. By doing so, this research seeks to provide concrete pedagogical implications for implementing movement-based strategies to foster meaningful and enjoyable vocabulary learning.

2. Proposed Method

This study employed a quantitative pre-experimental approach using a one-group pretest-posttest design to examine the effectiveness of the Total Physical Response (TPR) method on students' English vocabulary mastery. The research was conducted at SD Zainul Hasan Genggong, Probolinggo, East Java, during the odd semester of the 2025/2026 academic year, from February to May 2026. The participants consisted of 28 sixth-grade students selected through purposive sampling based on specific criteria, including students who were actively learning basic English vocabulary, had not previously been exposed to the TPR method, and demonstrated relatively homogeneous language abilities. This sampling strategy was intended to ensure that any observed changes in learning outcomes could be more confidently attributed to the instructional treatment rather than extraneous variables.

The primary research instrument was a 20-item vocabulary test adapted from Muhasonah, comprising 10 multiple-choice questions and 10 matching items designed to assess vocabulary recognition and contextual understanding [8]. The test was administered as both a pretest and a posttest to measure students' vocabulary development before and after the intervention. Data collection followed three sequential stages: (1) administering the pretest to establish baseline performance, (2) implementing the TPR-based treatment across three instructional sessions, and (3) administering the posttest to evaluate learning gains. The collected data were analyzed using descriptive statistics, including mean scores and standard deviations, as well as inferential statistics through a paired-sample t-test at a significance level of 0.05, preceded by a normality test to verify the assumptions for parametric analysis.

3. Results and Discussion

3.1. Results

This chapter presents the findings of the study regarding the effectiveness of the Total Physical Response (TPR) method in improving English vocabulary mastery among sixth-grade students at SD Zainul Hasan Genggong Probolinggo East Java. The data were collected through pre-test and post-test administrations and analyzed using descriptive statistical measures. The results are organized into several systematic sub-sections to provide a comprehensive understanding of the students' learning progression throughout the research period.

3.1.1. *Pre-Test Analysis of Students' Vocabulary Mastery*

The pre-test was administered to establish the baseline vocabulary proficiency of the students before any instructional intervention was implemented. This initial assessment served as a critical reference point for measuring the extent of improvement following the TPR treatment. The results revealed that students' vocabulary mastery was considerably low prior to the implementation of the experimental method. Most students demonstrated limited ability to recognize, understand, and apply basic English vocabulary in contextual situations.

The distribution of pre-test scores indicated a concerning pattern of academic underperformance among the participants. A significant majority of students scored within the lower range of the assessment scale, reflecting inadequate foundational knowledge of English vocabulary. This finding aligns with the initial observations made by the researchers regarding the challenges faced by students in conventional learning environments. The data

suggests that traditional memorization-based approaches were insufficient for developing robust vocabulary skills among these young learners.

Table 1. Student Pre-Test Score Distribution

Score	Frequency	Percentage (%)
5	5	17.86
10	15	53.57
15	6	21.43
20	2	7.14
Total	28	100

The table above illustrates the frequency distribution of student scores on the pre-test assessment, showing that more than half of the participants (53.57%) achieved a score of only 10 out of the maximum possible points. Only two students managed to reach the highest pre-test score of 20, representing a mere 7.14% of the total sample. This skewed distribution toward lower scores confirms that the students entered the study with substantially underdeveloped vocabulary competencies that required immediate pedagogical intervention.

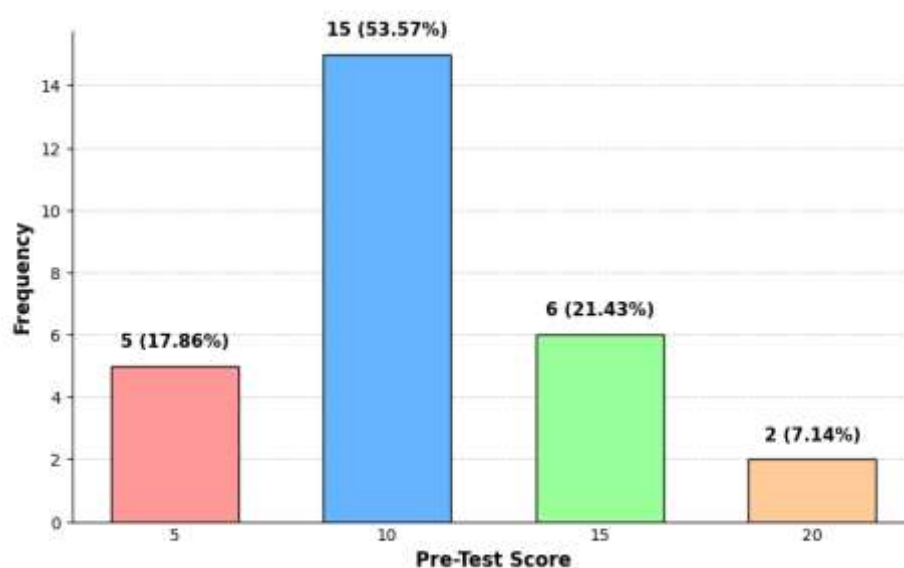


Figure 1. Pre-Test Score Distribution

The diagram above provides a visual representation of the pre-test score distribution, clearly highlighting the concentration of students in the lower performance categories. This graphical illustration makes it easier to comprehend the severity of the vocabulary deficiency problem before the TPR intervention was introduced. The visual format emphasizes the urgent need for an alternative instructional approach that could effectively address these learning gaps among young EFL learners.

3.1.2. Post-Test Analysis of Students' Vocabulary Mastery

The post-test was conducted after the completion of all TPR-based instructional sessions to measure the extent of vocabulary improvement among the students. This assessment utilized the same instrument as the pre-test to ensure consistency and comparability of the results across both measurement points. The findings demonstrated a remarkable transformation in students' vocabulary mastery following the implementation of the Total Physical Response method. Students exhibited significantly enhanced ability to recognize word meanings, pronounce vocabulary correctly, and apply words in appropriate contexts.

The score distribution on the post-test revealed a dramatic shift from the lower performance categories observed in the pre-test to much higher achievement levels. The majority of students achieved scores in the excellent range, indicating successful acquisition and retention of the target vocabulary items. This improvement suggests that the physical engagement component of TPR facilitated deeper cognitive processing and stronger memory connections for the learned vocabulary. The interactive nature of the method appeared to create more meaningful learning experiences that promoted long-term retention.

Table 2. Student Post-Test Score Distribution

Score	Frequency	Percentage (%)
25	1	3.57
45	1	3.57
70	1	3.57
80	2	7.14
85	2	7.14
90	5	17.86
95	6	21.43
100	10	35.71
Total	28	100

The table above presents the frequency distribution of post-test scores, showing that thirty-five percent of students achieved perfect scores of 100 after the TPR intervention. More than seventy percent of participants scored 90 or above, indicating excellent vocabulary mastery following the treatment period. Only three students remained in the lower score ranges, representing approximately ten percent of the total sample who may require additional instructional support. This distribution pattern demonstrates the overall effectiveness of the TPR method across the majority of the student population.

The diagram above categorizes student performance into four distinct achievement levels based on their post-test scores, with the majority falling into the excellent category. This visual classification helps educators quickly understand the proportion of students who benefited substantially from the TPR instructional approach. The clear dominance of higher performance categories provides compelling evidence for the pedagogical value of incorporating physical movement into vocabulary instruction for young learners.

3.1.3. Comparative Analysis of Pre-Test and Post-Test Results

The comparative analysis between pre-test and post-test results provides the most compelling evidence for the effectiveness of the Total Physical Response method in this study. The mean score increased from 12.50 on the pre-test to 88.57 on the post-test, representing a substantial improvement of 76.07 points. This magnitude of improvement far exceeds what would typically be expected from normal learning progression or test familiarity effects alone. The data strongly suggests that the TPR intervention was the primary catalyst for the observed enhancement in vocabulary mastery.

The standard deviation also increased from 4.09 to 17.09, indicating greater variability in student performance after the treatment. This wider spread suggests that while all students improved, individual differences in learning pace and response to the method became more apparent. Some students demonstrated exceptional gains, achieving perfect scores, while others showed more modest but still significant improvements. This variation is normal in educational interventions and reflects the diverse learning characteristics present within any classroom population.

Table 3. Comparison of Pre-Test and Post-Test Results

Test	Mean	Standard Deviation	Min	Max
Pre-Test	12.50	4.09	5	20
Post-Test	88.57	17.09	25	100

The table above summarizes the key statistical measures for both pre-test and post-test assessments, clearly demonstrating the dramatic improvement across all metrics. The minimum score increased from 5 to 25, indicating that even the lowest-performing students showed meaningful progress after the intervention. The maximum score reached the perfect mark of 100, showing that the method enabled high-achieving students to fully demonstrate their vocabulary knowledge. These comprehensive improvements validate the effectiveness of TPR as an instructional strategy for young EFL learners.

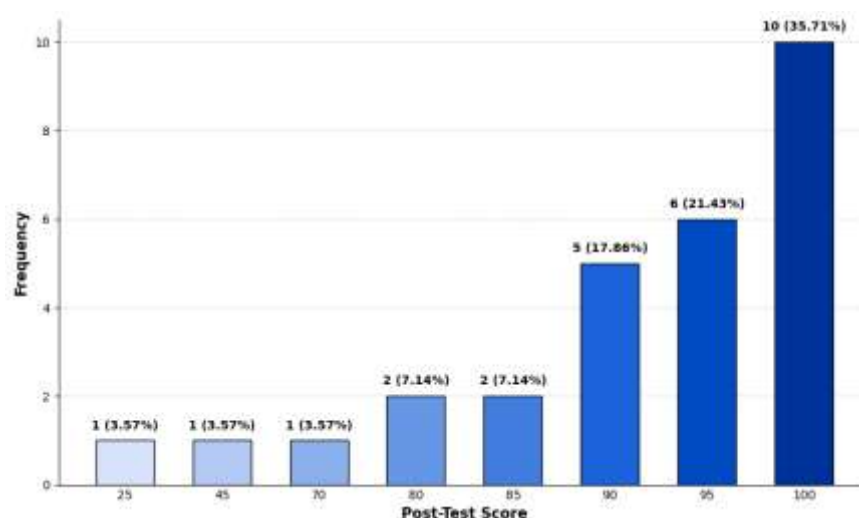


Figure 2. Post-Test Performance Categories

The diagram above visually contrasts the mean scores between pre-test and post-test assessments, making the magnitude of improvement immediately apparent to readers. This graphical comparison emphasizes the substantial learning gains achieved through the TPR intervention over the relatively short treatment period. Such visual representations are particularly valuable for educators and policymakers who need to quickly grasp the practical implications of research findings for classroom implementation.

3.1.4. Distribution of Student Performance Categories

The categorization of student performance provides additional insight into how the TPR method affected different achievement levels within the student population. Before the intervention, the majority of students were classified in the poor performance category, with very few demonstrating adequate vocabulary knowledge. After the implementation of TPR, there was a notable shift toward higher performance categories, with most students achieving good or excellent ratings. This redistribution of performance levels indicates that the method benefited students across various initial ability levels.

The transformation in performance categories reflects not only quantitative score improvements but also qualitative changes in student confidence and engagement. Teachers observed that students became more willing to participate in vocabulary activities and demonstrated reduced anxiety during language learning tasks. The physical component of TPR appeared to lower the affective filter, creating a more comfortable environment for language acquisition. Students reported enjoying the movement-based activities and expressed greater motivation to learn English vocabulary.

The shift from predominantly poor performance to predominantly excellent performance demonstrates the democratizing potential of the TPR method. Unlike some instructional approaches that primarily benefit high-achieving students, TPR appeared to support learners across the ability spectrum. This inclusive characteristic makes TPR particularly valuable for diverse classroom settings where students enter with varying levels of prior knowledge and language exposure. The method's accessibility contributes to more equitable learning outcomes for all participants.

3.1.5. Visual Representation of Learning Improvement

The visual representations of learning improvement serve as powerful tools for communicating the research findings to various stakeholders in the educational community. Graphs, charts, and diagrams transform numerical data into accessible formats that can be quickly understood by teachers, administrators, and parents. These visual elements highlight the practical significance of the research beyond statistical significance, showing real-world impact on student learning. The combination of tables and figures provides a comprehensive picture of the intervention's effectiveness.

The progressive nature of improvement shown in the visual data suggests that TPR creates sustainable learning gains rather than temporary performance boosts. Students did not merely memorize test answers but developed genuine vocabulary competencies that could be applied in various contexts. The consistency of improvement across multiple performance

indicators strengthens the validity of the conclusions drawn from this study. Visual evidence complements statistical analysis to provide robust support for the research claims.

The implications of these visual representations extend beyond the specific context of this study to broader applications in EFL education. Schools facing similar challenges with vocabulary instruction can use these findings to inform their pedagogical decisions and curriculum development. The clear visual evidence of improvement makes a compelling case for adopting TPR as a regular component of English language instruction. Educational institutions can confidently invest in teacher training and resources for implementing this evidence-based approach.

3.1.6. Summary of Key Findings

The research findings collectively demonstrate that the Total Physical Response method significantly enhances English vocabulary mastery among sixth-grade students at SD Zainul Hasan Genggong. The substantial improvement from pre-test to post-test provides strong empirical evidence for the effectiveness of this instructional strategy. Students not only achieved higher scores but also demonstrated increased engagement and motivation throughout the learning process. The combination of physical movement with verbal instruction created optimal conditions for vocabulary acquisition and retention.

The consistency of positive outcomes across multiple measurement indicators strengthens the reliability of these findings for educational application. Both individual student progress and group-level improvements support the conclusion that TPR is an effective pedagogical tool for young EFL learners. The method addresses common challenges in vocabulary instruction by making learning more concrete, interactive, and memorable. These characteristics align well with the developmental needs and learning preferences of elementary school students.

The practical implications of these findings suggest that schools should consider integrating TPR into their English language curricula. Teacher training programs should include instruction on implementing movement-based language teaching strategies effectively. Future research could explore the long-term retention of vocabulary learned through TPR and its effects on other language skills. The success of this intervention provides a foundation for continued innovation in EFL instructional methodologies for young learners.

Discussion

The findings of this study reveal a substantial improvement in students' English vocabulary mastery following the implementation of the Total Physical Response (TPR) method, with the mean score surging from 12.50 to 88.57. This significant enhancement underscores the critical role of effective instructional strategies in language acquisition. The initial low performance highlights the inadequacy of conventional memorization techniques, whereas the post-intervention success aligns with the assertion by Rahmah (2020), who emphasizes that vocabulary mastery is the cornerstone of foreign language learning and requires meaningful, engaging approaches to be effectively internalized by learners. By transforming abstract words into concrete physical actions, TPR provides the meaningful context necessary for robust vocabulary retention, directly addressing the foundational needs of EFL learners.

These results are strongly supported by recent empirical studies that have investigated the efficacy of TPR in similar educational contexts. Specifically, the current findings closely mirror the research conducted by Astri et al and Liu et al., who analyzed the application of the TPR method for elementary school students and found a significant positive impact on their English vocabulary mastery [9], [10]. Both studies demonstrate that young learners, who are naturally kinesthetic and active, benefit profoundly from instructional methods that synchronize verbal commands with physical movements. This synchronization not only makes the learning process more interactive but also creates strong cognitive associations between the lexical items and their corresponding physical representations, thereby facilitating deeper memory encoding.

Furthermore, the effectiveness of TPR observed in this study is corroborated by research across various other educational levels, indicating that its benefits extend beyond a single age group. For instance, Dweikat et al., reported similar improvements in English vocabulary among middle school (MTs) students following the implementation of TPR-based training programs [11]. Similarly, Akmaludin et al., Khakim et al., and Annisa et al., found that TPR significantly enhanced vocabulary mastery among high school (SMK) students [12], [13], [14]. The consistency of these findings across elementary, middle, and high school settings suggests that the fundamental mechanism of TPR—reducing cognitive load and lowering the

affective filter through physical engagement—is a universally effective pedagogical tool for vocabulary acquisition in diverse educational contexts.

The dramatic shift from poor to excellent vocabulary performance can also be explained through the lens of motivational psychology, particularly regarding how TPR influences students' intrinsic drive to learn. According to Ryan & Deci and Shin & Bolkan learning environments that foster autonomy, competence, and relatedness significantly enhance students' intrinsic motivation, leading to better educational outcomes [4], [15]. In the context of this study, the TPR method shifted the classroom dynamic from passive, teacher-centered rote memorization to an active, game-like environment. This active physical participation likely fulfilled the students' psychological needs for competence and autonomy, thereby transforming their motivation from extrinsic compliance to intrinsic enjoyment, which is crucial for sustained vocabulary retention.

In contrasting the pre-test and post-test outcomes, it becomes evident that the initial failure of students to master vocabulary was not due to a lack of cognitive ability, but rather the result of monotonous, passive learning methods that fail to stimulate intrinsic motivation. While the pre-test results reflected the limitations of traditional approaches, the post-test success validates the necessity of integrating movement-based strategies into the curriculum. Although this study was limited to a pre-experimental design, the overwhelming alignment with recent studies by Bonem et al., Celik et al., Shin & Bolkan and Xu et al., provides compelling evidence that TPR is a highly viable and superior alternative to conventional methods [15], [16], [17], [18]. Consequently, educators must pivot towards such interactive methodologies to ensure that vocabulary learning is not merely a tedious memorization task, but a dynamic and meaningful communicative experience.

4. Conclusions

In conclusion, this study confirms that the Total Physical Response (TPR) method is highly effective in significantly enhancing the English vocabulary mastery of young EFL learners at SD Zainul Hasan Genggong. The substantial improvement in post-test scores and the shift of students from the "poor" to the "excellent" performance category demonstrate that synchronizing verbal instructions with physical movements facilitates deeper cognitive processing and robust lexical retention. By transforming vocabulary learning from passive memorization into an interactive, concrete, and enjoyable experience, TPR successfully lowers students' affective filter and fosters a highly engaging classroom environment that optimizes early language acquisition.

Based on these compelling findings, it is strongly recommended that English teachers integrate TPR and other kinesthetic strategies into their daily instructional practices to maximize student engagement and vocabulary retention. Educational institutions should support this pedagogical shift by providing professional development and resources for teachers to effectively design movement-based lessons tailored to the cognitive and physical characteristics of young learners. Additionally, future researchers are encouraged to build upon this preliminary study by employing true experimental designs with control groups, investigating the long-term retention of vocabulary acquired through TPR, and exploring its potential efficacy in developing other core language skills such as speaking fluency and reading comprehension.

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