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The Effectiveness of Total Physical Response on Students' Listening Comprehension

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ABSTRACT

This study investigated the effectiveness of the Total Physical Response (TPR) method in improving students' listening comprehension at SMAN 3 Makassar. The study employed a pre-experimental design using a one-group pre-test and post-test approach involving 34 tenth-grade students from class X.5. Data were collected through listening comprehension tests administered before and after the treatment. The data were analyzed using descriptive statistics, paired-sample t-test, and N-Gain analysis. The findings revealed a significant improvement in students' listening comprehension scores, with the mean score increasing from 64.41 in the pre-test to 85.29 in the post-test. The paired-sample t-test indicated that the improvement was statistically significant ($t(33) = -18.222$, $p < .001$). Furthermore, N-Gain analysis showed that 20.6% of students achieved high gains, while 79.4% achieved moderate gains, with no students categorized as low gain. These findings indicate that TPR is an effective instructional method for improving listening comprehension among Indonesian EFL learners.

Key words: Total Physical Response (TPR); Listening Comprehension; EFL

INTRODUCTION

Listening comprehension plays a fundamental role in second language acquisition because it serves as the primary channel through which learners receive linguistic input. Before learners are able to produce language through speaking or writing, they must first understand spoken messages and process auditory information effectively. According to Ahmadi (2016), listening is not a passive activity but an active cognitive process involving the interpretation and construction of meaning from spoken language. Similarly, Gilakjani and Sabouri (2016) argue that listening comprehension constitutes the foundation of successful communication and supports the development of other language skills.

Despite its importance, listening remains one of the most challenging language skills for English as a Foreign Language (EFL) learners. Students frequently

experience difficulties in understanding spoken English because several linguistic and psychological factors interact simultaneously during listening activities. Limited vocabulary knowledge often becomes the first obstacle because learners struggle to infer meaning when they encounter unfamiliar words during listening tasks. Vocabulary deficiencies therefore prevent learners from constructing meaning from spoken discourse and negatively affect overall comprehension (Permatasari, Syam, & Sastrawati, 2023).

In addition to vocabulary limitations, concentration and motivation also significantly influence listening performance. Learners may lose focus because of environmental distractions, poor audio quality, lengthy listening tasks, or the cognitive demands associated with processing spoken language in real time. Underwood (1989) identified speech rate, limited vocabulary knowledge, and failure to maintain concentration as major barriers to listening comprehension. Likewise, Vandergrift (2007) highlighted that anxiety, motivation, linguistic competence, and learners' cognitive readiness substantially affect listening achievement among second language learners.

Unfortunately, listening instruction has not received adequate attention in many Indonesian schools. Compared with speaking, reading, and writing, listening is often treated as a supplementary skill rather than a core component of language instruction. Prihatin (2017) found that listening instruction in Indonesia is frequently constrained by inadequate facilities, the absence of standardized listening assessments, and limited teacher preparedness for delivering effective listening activities. Consequently, students often receive insufficient opportunities to develop listening strategies and practice understanding authentic spoken language.

Similar conditions were observed during the *Pengenalan Lapangan Persekolahan* (PLP) program conducted at SMAN 3 Makassar. Classroom observations and discussions with English teachers revealed that many students experienced difficulties in understanding spoken English instructions and audio materials used during classroom activities. These findings are consistent with Rahimirad and Zare-ee (2015), who reported that EFL learners commonly struggle with unfamiliar vocabulary, unfamiliar topics, rapid speech delivery, and accents that differ from those they usually encounter in the classroom.

One instructional approach that has the potential to address these challenges is Total Physical Response (TPR), originally developed by Asher (1969). TPR encourages students to respond physically to verbal commands, allowing them to establish direct associations between spoken language and meaningful actions. The method is based on the assumption that language acquisition becomes more effective when comprehension precedes production and when learners experience reduced anxiety during the learning process. Through repeated exposure to commands accompanied by physical movement, students are expected to develop stronger memory retention and better listening comprehension.

Previous studies have demonstrated the pedagogical value of TPR in language learning contexts. Sari, Sukirlan, and Suka (2017) reported that TPR creates a low-stress and enjoyable learning environment while remaining relatively simple for teachers to implement. Other studies have consistently shown that TPR improves classroom participation, learner engagement, and academic achievement among EFL students (Ummah, 2017; Rokhayani, 2017; Gumiandari, 2021; Madina, 2022). Furthermore, research conducted in Indonesian contexts indicates that integrating physical movement into language instruction can enhance vocabulary retention and facilitate comprehension of spoken input.

Although previous studies generally support the effectiveness of TPR, evidence regarding its implementation among Indonesian senior high school students, particularly in Makassar, remains limited. Moreover, many previous investigations have focused primarily on vocabulary acquisition or young learners rather than listening comprehension among adolescents. Therefore, this study aims to investigate the effectiveness of the Total Physical Response method in improving the listening comprehension of tenth-grade students at SMAN 3 Makassar.

LITERATURE REVIEW

Listening Comprehension

Listening comprehension is a complex cognitive activity through which learners receive, interpret, and construct meaning from spoken language. Successful listening requires learners to recognize speech sounds, understand vocabulary items, identify grammatical relationships, and integrate these linguistic elements into coherent messages (Gilakjani & Sabouri, 2016). Therefore, listening involves considerably more than the physical act of hearing; it requires active processing and meaning-making that enable effective communication in a second language (Ahmadi, 2016).

The comprehension of spoken language occurs through the interaction of multiple processing mechanisms. Gebhard (2000) distinguishes two complementary processes involved in listening comprehension. The first is bottom-up processing, in which learners interpret speech by decoding smaller linguistic units such as phonemes, words, and grammatical structures. The second is top-down processing, whereby listeners utilize background knowledge, prior experiences, and contextual information to infer meaning from spoken discourse. Effective listening performance depends on the integration of both processes rather than the exclusive use of one strategy.

Numerous variables influence learners' ability to comprehend spoken language successfully. Underwood (1989) identified several common difficulties experienced by language learners, including unfamiliar vocabulary, rapid speech delivery, and an inability to maintain concentration throughout listening activities.

These problems often occur simultaneously, making listening one of the most demanding language skills for EFL learners.

Similarly, Vandergrift (2007) argues that listening achievement is affected by a combination of linguistic, cognitive, and affective factors. Learners' language proficiency, memory capacity, and processing ability contribute to their listening performance, while motivational factors and anxiety levels may either facilitate or hinder comprehension. External variables such as unfamiliar accents, difficult vocabulary, and speech rate also influence learners' ability to process spoken input effectively.

The findings of Baa and Jaya (2019) support the idea that listening comprehension improves when students are actively involved in meaningful learning activities. Similar to Islamic storytelling, Total Physical Response (TPR) also emphasizes active learner engagement by combining verbal input with physical actions, enabling studetns to comprehend spoken language more effectively.

Total Physical Response (TPR)

Total Physical Response (TPR) is a language teaching method that integrates spoken language with physical movement to facilitate comprehension and language acquisition. Richards and Rodgers (2001) describe TPR as an instructional approach in which students demonstrate understanding through bodily responses to verbal commands rather than through immediate oral production. This approach transforms listening activities from passive reception into active participation and interaction. The theoretical foundation of TPR is based on the assumption that comprehension should precede production during language acquisition. Nunan (1991) explains that learners benefit from extensive listening exposure before being expected to speak the target language. Consistent with this principle, Larsen-Freeman (2000) emphasizes that TPR allows students to demonstrate understanding through actions, enabling them to develop confidence and comprehension before producing verbal responses.

Asher (1969), the developer of TPR, proposed that physical actions strengthen the connection between language input and memory retention. By associating spoken commands with movements, learners create stronger cognitive links between words and meanings, resulting in more effective vocabulary acquisition. Furthermore, the method creates a low-anxiety learning environment because students are not pressured to speak immediately and can participate through physical responses instead. The pedagogical benefits of TPR have been supported by subsequent studies. According to Asher (1969), movement-based learning contributes to vocabulary retention and facilitates the acquisition of grammatical structures in natural communicative situations. Similarly, Chen (2015) found that TPR enhanced learner engagement and improved retention of new language items more effectively than conventional teaching methods. These findings suggest that combining

physical movement with verbal input can provide an effective instructional strategy for improving listening comprehension among EFL learners.

Although these studies confirmed the effectiveness of storytelling, collaborative learning, and songs in listening instruction, limited studies have investigated the effectiveness of Total Physical Response (TPR) in improving listening comprehension at the senior high school level, particularly by combining quantitative achievement data with students' perceptions. Therefore, the present study investigates the effectiveness of TPR in improving students' listening comprehension and explores students' perceptions of its implementation.

METHOD

Design and Samples

This study employed a quantitative pre-experimental design using a one-group pre-test and post-test approach to investigate changes in students' listening comprehension following the implementation of Total Physical Response (TPR). This design involved measuring the listening performance of the same group before and after the intervention. The pre-test provided information about students' initial listening comprehension, while the post-test measured their performance after participating in the TPR learning activities. Comparing these measurements allowed the researcher to examine the direction and magnitude of changes in students' listening scores. The study was conducted at SMAN 3 Makassar and involved 34 tenth-grade students from class X.5, selected through purposive sampling. These students constituted the single study group and participated in both assessments. Since the design did not include a control group, the findings describe changes within the participating class. Therefore, improvements in listening scores should be interpreted with consideration of other factors that may have influenced students' performance during the study.

Instrument and Procedure

Data were collected using listening comprehension tests administered before and after the TPR intervention. The tests consisted of multiple-choice and short-answer questions assessing students' bottom-up and top-down listening processes. The multiple-choice questions required students to select an appropriate answer based on the spoken information, while the short-answer questions required them to provide brief written responses demonstrating their understanding. The assessment covered two complementary aspects of listening comprehension. Bottom-up processing concerned students' ability to recognize linguistic information in spoken input, including words and grammatical relationships. Top-down processing concerned their ability to use context and background knowledge to interpret the meaning of spoken messages. Including both aspects enabled the assessment to address the recognition of specific information as well as the understanding of meaning.

The procedure consisted of three main stages: pre-test administration, implementation of the TPR intervention, and post-test administration. The pre-test was administered to establish students' listening performance before the intervention. During the intervention, listening instruction used the TPR method, which connects spoken language with physical responses. The post-test was subsequently administered to measure students' listening comprehension after the intervention. Scores from both assessments formed the basis for examining changes in students' performance.

Data Analysis

Data were analyzed using descriptive statistics, a paired-sample t-test, and normalized gain (N-Gain) analysis using SPSS software. Descriptive statistics summarized students' pre-test and post-test performance through the number of participants, minimum and maximum scores, mean scores, and standard deviations. Score distributions were also presented using frequencies and percentages to show the proportion of students within each achievement category. These summaries provided an overview of students' listening performance before and after the intervention.

A paired-sample t-test was used to examine whether the mean difference between the pre-test and post-test scores was statistically significant. This analysis was appropriate for the paired measurements because both scores were obtained from the same students. The test results were interpreted using the mean difference, t-value, degrees of freedom, significance value, and confidence interval to describe the statistical evidence of change within the study group.

N-Gain analysis complemented the comparison of mean scores by examining improvement relative to the maximum possible increase from each student's initial score. The gain scores were grouped into low, moderate, and high categories to describe the distribution of improvement across participants. Together, these analyses provided information about overall achievement, the statistical significance of score differences, and the extent of improvement following the TPR intervention.

RESULT AND DISUSSION

Pre-test and Post-test Score Distribution

Table 1
Pre-test and Post-test Score Distribution

Score	Category	**Pre-test**		**Post-test**	
		Frequency	Percentage	Frequency	Percentage
81-100	Very Good	4	12%	18	53%
71-80	Good	7	20%	15	44%

Score	Category	Pre-test		Post-test	
		Frequency	Percentage	Frequency	Percentage
61-70	Fair	5	15%	1	3%
0-60	Poor	18	53%	0	0%
TOTAL		34	100%	34	100%

In the pre-test, more than half of students (53%) fell in the poor category, and only 12 % achieved Very Good. Following the TPR treatment, the Poor category dropped to 0%, while the Very Good category rose to 53% and Good to 44%.

Mean Scores and Standard Deviation

Table 2
Mean Scores and Standard Deviation

	N	Minimum	Maximum	Mean	Std. Deviation
Pre Test	34	50	80	64.41	10.785
Post Test	34	70	100	85.29	7.876

The mean score improved significantly from 64.41 to 85.29, a gain of 20.88 points, moving the class average from the Poor to the Very Good classification. The standard deviation decreased from 10.785 to 7.876, indicating that post-treatment scores became more homogeneous and the achievement gap between high and low performing students was reduced.

Paired Sample T-test

Table 3
Paired Sample T-test

Statistic	Pre-test − Post-test
Mean difference	-20.882
Standard deviation	6.682
Standard error of the mean	1.146
95% confidence interval: Lower	-23.214
95% confidence interval: Upper	-18.551
t	-18.222
df	33
Sig. (2-tailed)	.000

The paired sample t-test yielded t (33) = -18.222, p <.001. The 95% confidence interval for the mean difference (-23.214 to -18.551) does not include zero, confirming a statistically significant improvement. The null hypothesis (H_0: TPR does not enhance listening comprehension) was rejected, and the alternative hypothesis (H_1: TPR enhances listening comprehension) was accepted.

N-Gain Analysis

Table 4
N-Gain Analysis

N-Gain Category	Number of Students	Percentage
High (≥ 0.70)	7	20.6%
Average (0.30 – 0.69)	27	79.4%
Low (< 0.30)	0	0%
Total	34	100%

Seven students (20.6%) achieved high N-Gain scores, including four students (AVS, ZSA, FHG, ASW) who achieved a perfect N-Gain of 1.00. The remaining 27 students (79.4%) achieved average N-Gain scores. Notably, no student fell in the low-gain category, indicating that TPR produced at least moderate benefit for every participant. The study results show that TPR delivered better results for listening comprehension than the control group. The mean score increases from 64.41 to 85.29 with $t(33) = -18.222$ ($p < .001$) confirms that the improvement was not attributable to chance. The results of this study match Kurniawan and Septyanti's (2022) findings, which showed that Indonesian junior high school students who used TPR achieved better listening comprehension results, and Baa and Jaya (2019) reported, that "the use of Islamic storytelling was effective to increase students' listening comprehension." it did that because it created enjoyable learning activities and reduced students' anxiety.

Similarly, in the present study, the implementation of TPR significantly improved students' listening comprehension, sort of by creating an interactive learning environment where students could understand spoken English through physical responses. Likewise, Irmayani et al. (2025) found that collaborative learning really boosted students' listening skills, by motivating active involvement and more meaningful interaction, like they were talking back and forth in a better way. It seems the whole process made them engage more, and that synergy helped. These findings also align with Husna et al. (2024), who concluded that TPR significantly improved students' vocabulary mastery. They added that "the implementation of the Total Physical Response Method significantly and positively impacted the students' proficiency." In the same way, this study found that TPR was effective in enhancing students' listening comprehension, encouraging active responses to spoken language instead of passive listening.

The N-Gain analysis offers additional nuance. The student population shows that 20.6% of students reached high gains yet 79.4% of students reached average gains while no student achieved low gains. The distribution shows that TPR helps all learners yet it helps students with better baseline skills because they can use their vocabulary and cognitive resources to get maximum benefit from the method. The study results support Larson-Freeman's (2000) principle that students learn more effectively when success occurs in a low-anxiety environment and they support

Asher's (1969) principle that language learning becomes more effective through motor activity association. The standard deviation decreases from 10.785 to 7.876 shows that TPR training improved student performance and decreased the achievement gap between high-performing students and their peers. The TPR concrete method of teaching listening through physical activity makes learning easier for students who cannot understand traditional listening instruction methods.

CONCLUSION

This study investigated the effectiveness of the Total Physical Response (TPR) method in improving students' listening comprehension at SMAN 3 Makassar. The findings revealed that the implementation of TPR resulted in a substantial improvement in students' listening achievement. The mean listening score increased from 64.41 in the pre-test to 85.29 in the post-test, and the paired-sample t-test confirmed that the improvement was statistically significant, $t(33) = -18.222$, $p < .001$. Furthermore, the N-Gain analysis indicated that all students achieved moderate to high levels of improvement, suggesting that the benefits of TPR were experienced across different proficiency levels.

The findings support the theoretical assumptions underlying TPR that meaningful physical responses to spoken input facilitate language comprehension and strengthen memory retention. By integrating movement with verbal instruction, TPR provides learners with opportunities to process spoken language actively rather than passively receiving auditory information. Consequently, the method offers a practical instructional alternative for improving listening comprehension among secondary school EFL learners in Indonesia.

The study also provides pedagogical implications for English teachers, particularly in contexts where students encounter difficulties with listening activities. Teachers may consider incorporating movement-based listening activities and gradually increasing the complexity of verbal commands from simple single-step instructions to more complex multi-step tasks in order to support students' comprehension development.

Several limitations should be acknowledged. First, the absence of a control group limits the extent to which causal relationships can be established. Second, the study was conducted in a single school context, which may restrict the generalizability of the findings to other educational settings. Finally, the study focused exclusively on listening comprehension and did not examine the potential effects of TPR on other language skills. Future studies are therefore encouraged to employ quasi-experimental or experimental designs involving control groups and to investigate the effectiveness of TPR across different language skills and educational contexts.

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