The Impact of Total Physical Response Approach in Vocabulary Acquisition and Motivation among Rural Chinese Students

Zhang Linlin[1] & Khairul Azhar Jamaludin[1,2,3]

[1]Faculty of Education, Universit Kebangsaan Malaysia, Bangi, Selangor, Malaysia, [2]University Researeh Group on ELITEE: Enhanced Learning for Inclusive Transformatiom Education Experience, [3]University Research Group on Eduxcellence: Development of Innovative Cumiculum &Pedagogy
Email: p131786@siswa.ukm.edu.my, khairuljamaludin@ukm.edu.my

Abstract
Compared with traditional teaching, the application of Total Physical Response (TPR) teaching method in elementary school English teaching can improve students' learning effect and enhance classroom participation and engagement. TPR method combines language and body movement, teaching in various forms, and teaching process is rich, so it has been attracted the attention of different English teachers in recent years. The TPR method also plays an important role in teaching and learning English as a Second Language (ESL). Therefore, this study aims to apply the TPR method to stimulate classroom interaction and participation in order to improve the vocabulary level of elementary school students. By implementing the TPR module, physical movements and gestures are integrated into vocabulary teaching to mobilize multiple senses and cognitive processes to facilitate vocabulary learning. This research used a quantitative research method, combining pre-test and post-test questionnaires. This research randomly selected two grade 4 classes for an experiment in which one class received the TPR teaching method, and another one was taught through conventional methods; it got positive results that students' performance in the TPR group was significantly superior to the control group in terms of vocabulary memorizing ability and motivational performance. The findings indicated that TPR creates a participative, stress-free learning environment, and the depth of active vocabulary is achieved while keeping the learning rate high. Therefore, TPR can be one of the best ways to address educational challenges at rural sites that are poorly endowed with resources since its cognitive and affective benefits have a positive impact.
Keywords: Total Physical Response Approach, Vocabulary Acquisition, Motivation to Learn, Rural Primary Education

Introduction

As an international language, English plays a very important role in China's educational institutions. In particular, in the period when globalization is greatly speeding up, English is not only part of students' academic development but also the core of future professional

competitiveness (Xu, 2013). However, despite the many educational reforms implemented by the state, English education in rural areas still faces many challenges. Especially in vocabulary learning, students often lack effective learning methods and rely on mechanical memorization, which not only leads to poor vocabulary memorization, but also affects students' interest in learning (Haidar & Fang, 2019).

In recent years, with the rapid development of China's economy, the demand for English has continued to increase in society. The popularity of English as an internationally recognized language has also increased. This trend has been driven not only by economic globalization, but also supported by technological advances and educational reforms. China's English proficiency requirements for students in the compulsory education stage have also increased (Zhang & Deris, 2023). In the 2011 edition of the standards, level requirements are proposed for each of the five areas of language skills, language knowledge, affective attitudes, learning strategies and cultural awareness. Level 2 and Level 5 requirements are put forward for language knowledge. According to the objectives of language knowledge, Level 2 corresponds to the elementary school graduation level and 600-700 words should be learned. Level 5 corresponds to the junior high school graduation level, and 1500-1600 words should be learned (Ministry of Education of the People's Republic of China, 2011).

In the new standard of 2022, English in compulsory education will be changed to four levels. At the same time, there is a "+" level for "I, II, III", which provides more choices for students who have the ability to learn. Corresponding to the "Notice of the General Office of the Ministry of Education on Doing a Good Job of Proposing Questions for the 2022 Secondary School Examination" issued in April 2022, the paragraph "The test paper is too easy and difficult to reflect the differentiation" implies that there is no longer a clear grade restriction for English, and that the state encourages students with the capacity to learn to do certain improvements on the basis of learning the textbook content well (Ministry of Education of the People's Republic of China, 2022). The state encourages students who have the ability to learn to do some upgrading on the basis of a solid study of the textbook content to meet the competency needs of the "+" section. Meanwhile, in the old standard, the vocabulary requirement for students taking the secondary school examination was 1,600 words and 200-300 phrases. Whereas in the new standard, the standard for Level 3 "+" has become 1,800 words, and according to the actual situation, be exposure to and learning of 200 words within the relevant subject area as well as idioms and fixed collocations. Therefore, the new standard requires a vocabulary of 2,000 words, which is 25% more than the original one, and requires active learning (Li & Wang, 2021). Therefore, it is to improve students' English language skills, especially vocabulary application, in compulsory education.

In the field of educational research, vocabulary acquisition is considered a key part of language learning. Linguists such as Wilkins (1972), have pointed out that "without grammar, people express a limited number of things; without vocabulary, they cannot express anything." Therefore, vocabulary acquisition is crucial to verbal communication（Ito & Hilliker 2019）. However, in rural China, teachers' teaching methods are mainly based on the traditional translation method and rote memorization, which can help students pass exams in the short term but cannot promote long-term vocabulary memorization and practical application. In addition, students generally lack interest in English, and the improvement of English proficiency faces greater obstacles (Zeng, 2022).

Total Physical Response (TPR), as a pedagogy that combines body movements with language instructions, provides a new solution to these problems. TPR simulates the natural process of mother-tongue acquisition by combining body movements with language learning, helping students learn vocabulary in a low-stress, highly interactive environment. This method not only promotes long-term vocabulary memorization, but also effectively stimulates students' interest in English learning and enhances their language application skills (Llmi & Anwar, 2022). Therefore, TPR, as an innovative language teaching method, can help improve the challenges faced in language teaching in rural areas and enhance students' vocabulary acquisition and comprehensive language proficiency.

Although studies have shown that Total Physical Response (TPR) is an effective language teaching method that can promote vocabulary memorization and comprehension by combining body movements with language input, fewer studies have been conducted on the teaching of English in rural elementary school in China (Zhao & Chen 2019). Teaching resources in rural schools are limited and teachers lack professional training for TPR pedagogy, resulting in a still large gap in the application of this method in rural areas (Wang & Young 2021). In addition, there is a lack of systematic empirical research on the long-term effects of TPR on students' motivation to learn.

This study aimed to explore the effects of its application in English vocabulary teaching in rural Chinese elementary school through the whole-body response method. By applying TPR in an authentic teaching environment, this study not only focuses on students' vocabulary mastery, but also on its effects on students' motivation. The study adopts a mixed methods research methodology combining quantitative pre and post-tests with qualitative interview analysis in a bid to provide new ideas for rural China's English education.

The research questions are as following.
1. What is the effectiveness of the English TPR module in enhancing the motivation of some rural Chinese elementary school students?
2. How effective is the English TPR module in improving the vocabulary level of some rural Chinese elementary school students?

Literature Review
Total Physical Response Teaching Method
Total Physical Response (TPR) is a language teaching method put forward by James Asher in the 1960s, which was widely used in the field of second language acquisition and mainly based on the theory that the integration of language with physical movement promotes the process of children's mother tongue learning. Its theoretical basis is borrowed from how children acquire their mother tongue. It is assumed that a combination of language and body movement can improve learning. TPR is suitable for beginners in language learning and, more importantly, for children because learners can generate language more naturally through interaction and physical activities (Astutik et al., 2019).

Vocabulary Acquisition
Vocabulary acquisition refers to the process by which learners gradually master the form and meaning of words and their usage through exposure to and use of vocabulary in the target language. Vocabulary is the core component of language learning, and acquiring sufficient

vocabulary is the basis for effective language communication. Vocabulary acquisition involves not only memorizing the meanings of words, but also being able to apply vocabulary correctly in oral and written expressions. Vocabulary acquisition can take place in a variety of ways, including listening, reading, interaction, and repetitive practice (Schmitt & Schmitt, 2020). Vocabulary acquisition is central to language learning, especially for students learning English as a second language (ESL). In rural schools in China, students face many challenges in learning English due to limited resources, resulting in low motivation and poor language learning (Ye, 2021).TPR, as a pedagogical method, excels especially in vocabulary acquisition by combining language with physical movement (Sumarni et al., 2022).TPR provides an interactive and fun way for those rural students with interactive and fun alternatives.

Sumarni et al (2022), found that combining TPR with interactive classroom activities was effective in improving vocabulary retention. Students in rural areas with limited resources were better able to improve vocabulary mastery through this combined approach.Paramita (2022), showed that TPR significantly increased student engagement and retention in vocabulary lessons, especially among young learners in rural areas, and that students were able to better memorize new words through physical engagement.Supriyatin and Argawati (2021) found that TPR not only improves middle school students' vocabulary acquisition but also stimulates their creativity. It is contrasted that TPR, compared to the traditional methods of rote memorization, makes learning more fun and develops the body effectively. Zhao and Chen (2019), and Wang and Young (2021), also found that TPR helped students remember vocabulary through repetitive body movements that strengthened language learning.

These studies are indicative that TPR does play an important role in acquiring vocabulary and is particularly applicable to the settings of rural schools due to the limited resources available (Sumarni et al., 2022; Paramita, 2022).

Learning Motivation
Learning motivation is the intrinsic or extrinsic driving forces that drive an individual to engage in learning behaviours. Motivation is typically described in terms of intrinsic and extrinsic motivation. It is driven by individuals who motivate himself or herself to learn due to interest or curiosity or the intent to improve himself or herself and intrinsic motivation, that is, the activity of learning is initiated solely by the individual, while extrinsic motivation is always due to punishment or rewards (Utkir et al., 2020). Therefore, motivation is the most important thing that influences students' learning performance as it determines how much time, effort and concentration learners make. Motivation is particularly important in the process of language learning for vocabulary gain and whole-language proficiency (Cao & Yu, 2023).

In language learning, intrinsic motivation is highly important; as Utkir et al (2020), said, TPR motivates students through an interactive and funny environment. TPR, Cao, and Yu's (2023), meta-analytic study on the innovative approach to learning has been reported to have significantly improved the level of motivation in students by making learning more dynamic and interactive is an innovative approach. In resource-constrained settings, this becomes important. Abata et al (2021), claimed that TPR was useful in enhancing the speaking skills and acquiring vocabulary of beginner EFL learners. Physical movements with the words of vocabulary helped in the pronunciation and words; it also kept the students motivated

through physical activity. In some environments where traditional learning methods had completely failed to excite students' interest, these studies found no equal for TPR (Abata et al., 2021).

Second Language Acquisition Theory- Kra Shen' s Comprehensible Input

Krashen's Second Language Acquisition Theory emphasizes two key conditions for successful language learning: rich, comprehensible input and an internal language acquisition mechanism. He argues that language output is a result, not a cause, of acquisition, and forcing output too early hinders learning. In TPR (Total Physical Response) teaching, teachers use actions and commands to provide comprehensible input, allowing learners to focus on understanding rather than producing language. The input hypothesis, central to Krashen's theory, highlights four features of ideal language input: it must be comprehensible, abundant, interesting, and not grammatically sequenced. TPR aligns with these principles by emphasizing comprehension first, using engaging and relevant input, and avoiding a strict focus on grammar sequence. (Bailey & Fahad, 2021; Wu 2023)

The Work Division of the Left and Right Side of the Brain

The "left-right brain division of labor theory" posits that the two hemispheres of the brain perform distinct functions: the left hemisphere is responsible for linguistic functions, such as pronunciation, writing, reading, mathematical processing, and logical reasoning, while the right hemisphere handles geometric perception, emotional expression, and aesthetic appreciation. This implies that logical reasoning and abstract thinking are housed in the left brain, whereas visual memory and concrete thinking reside in the right brain (Dedic & Bećirović, 2021). Based on this theory, Prof. Asher suggested that the Total Physical Response (TPR) method can link the language function of the left brain with the concrete thinking function of the right brain, allowing students to grasp language in a real context. Children, for example, acquire vocabulary related to concrete objects by imitating movements, a typical right-brain activity, and once a certain level of learning is reached, the right brain supports the left brain's language processing without interference. To optimize learning, ample language input is necessary before the child begins to speak, and physical movement engages both hemispheres simultaneously, enhancing learning outcomes. Consequently, the TPR method, grounded in the division of labor between the two hemispheres, has developed a distinct approach that emphasizes listening before action, improving student learning efficiency (Li & Wen, 2022).

Multiple Intelligence Theory

The theory proposed by Howard Gardner emphasizes that everyone has many different types of intelligence, including verbal, motor, and visualization intelligence. TPR uses physical movement and visual demonstrations to enhance students' language learning. Through the combination of motor and visual intelligence, TPR can effectively stimulate students' different types of intelligence, thus increasing their motivation and vocabulary mastery (Huang & Wang 2023)

In conclusion, TPR provides an effective alternative method for vocabulary acquisition that is particularly suitable for rural Chinese students, who may face a lack of motivation and engagement in traditional teaching. Through body movements, TPR not only enhances

vocabulary memorization, but also increases students' motivation, making it an effective method of language learning in resource-limited settings.

Conceptual Framework

TPR module, as a teaching method, teaches language through the coordination of language and behavior. It is grounded in the developmental psychology, learning theory, and humanistic pedagogy that emphasizes physical activity as crucial in learning new language, drawing on the idea that a learner's ability to comprehend and retain language is enhanced when they physically respond to language input (Orakbayevna et al, 2021).

TPR learning method has been characterized as follows. Learners respond to commands that require physical movement. For example, the teacher might say "Jump," and students respond by jumping. This physical response is believed to help cement the language in the learner's memory. TPR emphasizes understanding language before speaking. Early stages focus on listening and responding physically to commands. Speaking comes later, once learners have built up an understanding of the language through action. The method aims to reduce learner stress, making the language acquisition process more enjoyable and effective. The emphasis on listening and responding, rather than on immediate verbal production, helps lower anxiety. TPR heavily utilizes imperative sentences to direct students' actions (Mariyam & Musfiroh, 2019).

TPR is based on several psychological and linguistic theories. The first is Theory of Suggestopedia, a portmanteau of "suggestion" and "pedagogy". It is a teaching method used to learn foreign languages developed by the Bulgarian psychiatrist Georgi Lozanov (Richards & Rodgers, 2001). It asserts that the physical surroundings and atmosphere of classroom are vital factors in making sure that "students feel comfortable and confident" (Harmer & Jeremy, 2001). That emphasizes relaxed and fun environment is more conducive to learning. The second is the Trace Theory of Memory which suggests that memories are strengthened by multiple and varied repetitions; physical responses to language input create stronger memory traces. The third one is Innate Bio-Program. Asher's hypothesis that there is a natural, biological way to acquire language, similar to how children learn their first language, involving both listening and physical response. The fourth one is Motivational Theories in Education.

TPR has been found particularly effective in the early stages of language learning and with young learners, who often find the physical aspects of the method engaging and fun. It's used for teaching vocabulary, imperatives, and action-related language. TPR can also be beneficial for learners with physical or learning disabilities, offering a more accessible and inclusive approach to language learning.
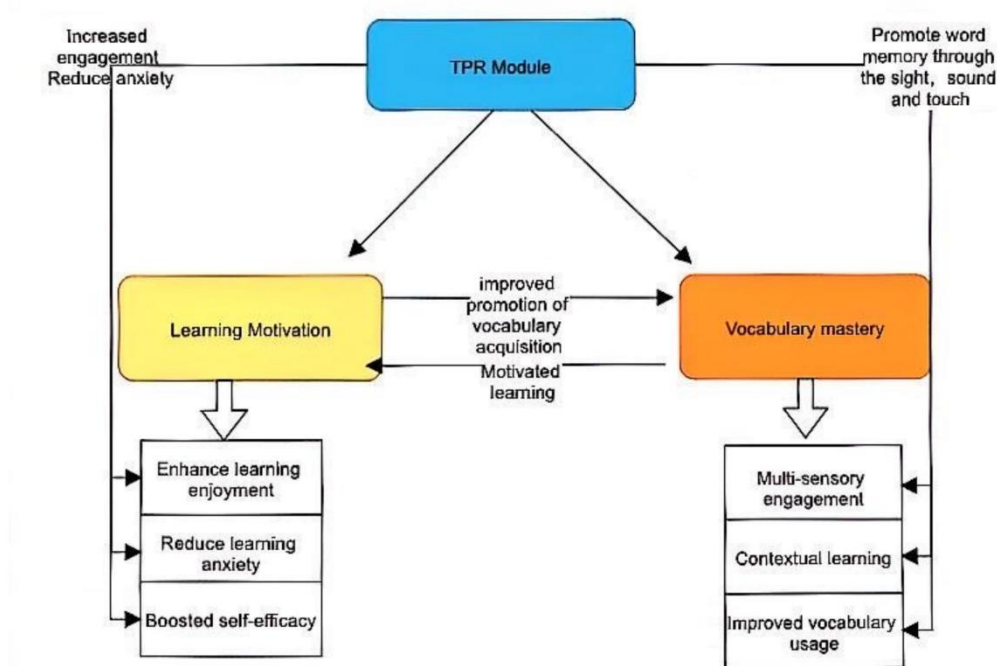
Figure 1 The Conceptual Framework

Methodology

Research Design

A quasi-experimental research design was utilized in this study as it allowed for the evaluation of the effects of instructional interventions in a naturalistic setting while allowing for research to be conducted in an actual educational setting. Two fourth-grade classes were selected for this comparative study, with one class serving as the experimental group receiving the TPR module and the other class serving as the control group using traditional instructional methods. Since class assignments could not be randomized, a quasi-experimental design was the most appropriate choice so that the experiment could be conducted without disrupting the normal teaching schedule.

Population and Sample

The population of this study was all the fourth grade students in a primary school in Lianzhou Town, Gao Cheng District, Shijiazhuang, Hebei Province, China. To ensure the representative sample, students from two fourth grade classes in the school, each with 45 students each, were selected as the study sample. One class served as the experimental group and received the TPR module, and the other class served as the control group and used the traditional teaching method.

Purposive sampling method was used to select participants for this study. Due to the limitations of the study site, participants were selected from schools that were accessible to the researcher. This method, despite some bias, was a reasonable choice given the limited resources of the study. Additionally, participants had to meet the following criteria: 1) fourth grade students, 2) no formal training in the TPR methodology in the past year, and 3) willingness to participate in the entire study process and obtain parental consent.

Table 1
Number of participants in each group

Group	Number
Experimental group	45
Control group	45

The instruments used in this study include：1) Learning Motivation Questionnaire and 2) YLE (Young Learners English) Cambridge Young Learners English Level Test. YLE starter sample paper volume one was chosen for the pre-test and YLE starter sample paper volume two was used for the post-text. The details are as follows.

Questionnaire
The questionnaire is adapted from the questionnaire of Gu & Johnson (1996) the influence of TPR teaching method on elementary school students' interest in English vocabulary learning. The questionnaire that can be seen in Table 1 is divided into three dimensions, a total of 10 questions, which are students' emotional tendency to vocabulary learning, students' attention in vocabulary learning in class and students' habit of vocabulary learning out of class. The first category contains four questions from 1 to 4. Question 1 is I like studying English now, Question 2 is I think it is interesting to learn English vocabulary items. Question 3 is I think it is an interesting process to remember English vocabulary items.Question 4 is I like the way the teacher teaches us English vocabulary items very much. These four questions are all about the emotional tendency to English vocabulary learning, namely the degree of the students' like English vocabulary learning. The second category concerns three questions from 5 to 7. Question 5 is I don't feel nervous when the teacher teaches new vocabulary items in class. Question 6 is I am interested in taking part in classroom activities.Question7 is I positively answer the teacher's questions in English classes. These three questions mainly demonstrate the students' attention in class, that is to say, their behavior in class. The third category is related to students' habit of vocabulary learning out of class including three questions. Question 8 is I spend some time remembering the newly learned vocabulary items every day. Question 9 is I positively review the learned vocabulary items after a period of time. Question 10 is I pay attention to vocabulary items in daily life and positively remember some normal words in life. The questionnaire is in the form of single choice, and each question has five options: very agree, agree, uncertain, disagree and very disagree, which is the simplest method to analyze classified data. The author can easily find student' interest in learning English from their choices. In this experiment, the author used this questionnaire twice. The subjects of the two questionnaires were the same. The first time was before the experiment to test students' interest in vocabulary learning; the second time is at the end of the experiment, and the second time is to test whether students' interest in vocabulary learning has changed.

Table 2
Dimensions of the Questionnaire

Dimensions of the Questionnaire	
Dimension	Items
Emotional tendency	1,2,3,4
Attention in class	5,6,7
Habit of out -of class learning	8,9,10

The questionnaire contains three dimensions. The first category is about students emotional tendency to vocabulary learning, a total of four questions (questions 1 to 4). The second category is about students' attention in vocabulary learning in class, with a total of three questions (questions 5 to 7). The third category is about students' vocabulary learning habits out of class, a total of three questions (questions 8 to 10).

In order to make sure the questionnaire is suitable for the study, the author delivered 257questionnaires to students from three different primary schools in advance and collected all the questionnaires. The recollection rate is 100 percent, With 34 deleted from all the questionnaires for their incomplete or invalidity, the data of the remaining 223 questionnaires are put into SPSS 27 to analyze the reliability and validity of the questionnaire. The results are shown in Table4-2 Table4-3.

Table 3
Reliability of the Questionnaire

Cronbach's Alpha	N of Items
.873	10

As the above table shown, Cronbach's Alpha coefficient is .873 (Alpha>0.8), which indicates that the questionnaire has good reliability.

Table 4
Reliability of the Questionnaire for Each Question

QUESTIONS	DELETED CRONBACH'S ALPHA
Q1	.851
Q2	.852
Q3	.855
Q4	.863
Q5	.872
Q6	.861
Q7	.860
Q8	.861
Q9	.861
Q10	.863

Table 5
Validity of the Questionnaire

KMO and Barlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.889
Bartlett's Test of Sphericity	Approx. Chi-Square	994.578
	Df	45
	Sig.	.000

As the data above shown, KMO value is 0.889, higher than the standard (KMO>0.7),and the significance is .000, indicating the questionnaire has good validity. From the data shown above, this means that the questionnaire is suitable for the study and each question can be used to test what is designed to test students' interest in English vocabulary learning. Then,the reliability and validity of the questionnaire is ensured.

Pre-test and Post-Test Paper
In this study, Cambridge Young Learners English YLE starter sample paper volume one and YLE starter sample paper volume two were used as experimental and control class tests. Only the listening and reading parts were used. There are 20 questions in listening and 20 questions in reading. The Cambridge Young Learners English Test itself is a standardized test that has been fully validated for reliability and validity.

Data Collection
The data collection process in this study consisted of three sessions: the pre-intervention questionnaire and vocabulary pre-test, the intervention experiment, and the post-intervention questionnaire and vocabulary post-test, as shown in Table 5.

Table 6
Data Collection Process

Before the experimental intervention	Experimental intervention	After the experimental intervention
Leaning motivation	Experimental group	Learning motivation
Test score		Test score
Leaning motivation	Control group	Learning motivation
Test score		Test score

Standardized questionnaires and vocabulary tests were used for the participants in the experimental and control groups before the experimental intervention, and then the results were counted as pre-test data. During the experimental intervention, the experimental class used the TPR teaching method, while the control class used the traditional learning method. Both groups of participants spent a total of one month in the assigned teaching activities. After the experimental intervention, the participants in the experimental and control groups were again administered a standardized questionnaire and vocabulary test, and the results were tallied as post-test data.

Data Analysis
In this study, descriptive statistics were used to analyze the data. The quantitative data collected were analyzed using SPSS software. The main methods of analysis included

descriptive statistics (e.g., mean, standard deviation), paired samples t-tests (comparing differences between pre-tests and post-tests), and independent samples t-tests (comparing differences between the experimental and control groups). These methods helped to quantify the effects of the TPR module on motivation and vocabulary acquisition levels.

Results

According to the questions of this study: 1. How effective is the English TPR module in improving the learning motivation of students in some rural elementary school in China? 2.How effective is the English TPR module in improving the vocabulary level of some Chinese rural elementary school students? we can draw the following results.

Table 7
Questionnaire Data from EC Students' Interest in English Vocabulary Learning

Number		A		B		C		D		E	
		Number	Proporation	Number	Proporation	Number	Proporation	Number	Proporation	Number	Proporation
1	Pre	6	13.33%	6	13.33%	16	35.56%	10	22.22%	7	15.56%
	Post	13	28.89%	12	26.67%	8	17.78%	6	13.33%	6	13.33%
2	Pre	6	13.33%	6	13.33%	10	22.22%	17	37.78%	6	13.33%
	Post	12	26.67%	13	28.89%	6	13.33%	8	17.78%	6	13.33%
3	Pre	6	13.33%	6	13.33%	13	28.89%	12	26.67%	8	17.78%
	Post	12	26.67%	14	31.11%	9	20%	6	13.33%	4	8.89%
4	Pre	5	11.11%	6	13.33%	13	28.89%	16	35.56%	5	11.11%
	Post	13	28.89%	11	24.44%	12	26.67%	6	13.33%	3	6.67%
5	Pre	5	11.11%	6	13.33%	13	28.89%	14	31.11%	7	15.56%
	Post	11	24.44%	13	28.89%	9	20%	7	15.56%	5	11.11%
6	Pre	5	11.11%	6	13.33%	10	22.22%	16	35.56%	8	17.78%
	Post	10	22.22 %	14	31.11%	9	20%	6	13.33%	6	13.33%
7	Pre	4	8.89%	6	13.33%	11	24.44%	13	28.89%	11	24.44%
	Post	13	28.89%	13	28.89%	10	22.22%	6	13.33%	3	6.67%
8	Pre	4	8.89 %	6	13.33%	11	24.44%	14	31.11%	10	22.22%
	Post	12	26.67%	14	31.11%	8	17.78%	7	15.56%	4	8.89%
9	Pre	6	13.33%	7	15.56%	10	22.22%	13	28.89%	9	20%
	Post	12	26.67%	15	33.33 %	8	17.78%	6	13.33%	4	8.89%
10	Pre	4	8.89%	8	17.78%	9	20%	12	26.67%	12	26.67%
	Post	11	24.44%	13	28.89%	8	17.78%	7	15.56%	6	13.33%

Table 8

Questionnaire Data from CC students' interest in English Vocabulary Learning

Number		A		B		C		D		E	
		Number	Proporation	Number	Proporation	Number	Proporation	Number	Proporation	Number	Proporation
1	Pre	6	13.33%	7	15.56%	14	31.11%	10	22.22%	8	17.78%
	Post	6	13.33%	8	17.78%	14	31.11%	9	20%	8	17.78%
2	Pre	6	13.33%	7	15.56%	10	22.22%	13	28.89%	9	20%
	Post	7	15.56%	8	17.78%	11	24.44%	14	31.11%	5	11.11%
3	Pre	7	15.56%	6	13.33%	13	28.89%	11	24.44%	8	17.78%
	Post	8	17.78%	7	15.56%	15	33.33%	8	17.78%	7	15.56%
4	Pre	4	8.89%	5	11.11%	14	31.11%	14	31.11%	8	17.78%
	Post	6	13.33 %	7	15.56%	11	24.44%	14	31.11%	7	15.56%
5	Pre	5	11.11%	8	17.78%	11	24.44%	11	24.44%	10	22.22%
	Post	7	15.56%	8	17.78%	8	17.78%	11	24.44%	11	24.44%
6	Pre	6	13.33%	7	15.56%	12	26.67%	13	28.89%	7	15.56%
	Post	8	17.78%	9	20%	9	20%	13	28.89%	6	13.33%
7	Pre	5	11.11%	7	15.56%	11	24.44%	11	24.44%	11	24.44%
	Post	7	15.56%	8	17.78%	10	22.22%	12	26.67%	9	20%
8	Pre	6	13.33%	7	15.56%	11	24.44%	12	26.67%	9	20%
	Post	8	17.78%	7	15.56%	10	22.22%	12	26.67%	8	17.78%
9	Pre	7	15.56%	6	13.33%	9	20%	12	26.67%	11	24.44%
	Post	8	17.78%	11	24.44%	7	15.56%	12	26.67%	7	15.56%
10	Pre	5	11.11%	7	15.56%	10	22.22%	12	26.67%	11	24.44%
	Post	8	17.78%	10	22.22%	9	20%	10	22.22%	8	17.78%

Total Physical Response (TPR) Teaching Method can Stimulate Students' Interest in Learning New Words and LEARNING ENGLISH

From the data in question 1, we can see that before the beginning of the experiment, 26.66% of the subjects in the experimental class were interested in learning English, while 28.89% of the subjects in the control class were interested in learning English. However, after nearly one month, the percentage of the experimental class increased to 55.56%, while the percentage of the control class is still only 31.11%, which is not significantly different from the data before the experiment started. As we can see from the data in question 2, 26.66% of the students in the experimental class and 28.89% of the students in the control class found vocabulary learning interesting. After the experiment, the percentage of this question increased to 55.56% in the experimental class and only 33.34% in the control class, which is not a significant difference from the data before the experiment started. From question 3, we can see that 26.66% of the students in the experimental class and 28.89% of the students in the control class thought that the process of memorizing English words was fun, and after the experiment, the percentage of the experimental class rose to 57.78%, while the percentage of the control class was only 33.34%. The data from question 4 can reflect that the effect of teaching new words using the Total Body Response (TPR) teaching method is better than teaching new words using the traditional method. For third-grade primary students who are new to English, the key to learn English well is to expand their vocabulary and accumulate more words, which is also the teaching goal of English teachers. Before the experiment began, the teacher used the traditional teaching method in both the experimental class and the control class. In the data of the questionnaire, it is easy to find that 24.44% of the students in the experimental class agreed with the teaching method used by the teacher, and 20% of the students in the control class agreed with the teaching method used by the teacher; after the experiment, the proportion of the experimental class increased to 53.33%, that is, 53.33% of the students agreed with the teacher's use of Total Body Response (TBR). teacher's use of Total Body Response (TPR) teaching method, while the percentage in the control class was

28.89%, which is not significantly different from the previous one. From the above data, we can conclude that the Total Physical Response (TPR) teaching method can stimulate the interest of the learners in learning new words and learning English.

Total Physical Response (TPR) Teaching Method Changes Students' Attitudes Toward Vocabulary Learning

As we can see from the data of question 5, before the beginning of the experiment, only 24.44% of the students in the experimental class used techniques to memorize new words, while in the control class, before the beginning of the experiment, the percentage of this question was 28.89%; at the end of the experiment, more than half (53.33%) of the students in the experimental class had mastered the ability to memorize new words, however, in the control class, only 33.34% of the students were able to master techniques to memorize new words. only 33.34% of the students. From the data in question 6, it can be seen that more and more students in the experimental class were able to memorize words in different ways after using the Total Physical Response (TPR) method, however, the number of students who were able to memorize words in different ways in the control class was still in the minority. From the data in question 7, we can see that before the experiment began, only 22.22% of the students in the experimental class answered the teacher's questions actively in class, while the proportion of the control class was 26.67%; after the experiment, the proportion of the experimental class increased to 57.78%, while the proportion of the control class was only 33.33%, which is not a significant improvement. From these data, it is obvious that when teachers use the Total Physical Response (TPR) method to teach English vocabulary, students are very enthusiastic and passionate about learning new words. The students' attitudes towards vocabulary learning have changed dramatically.

Total Physical Response (TPR) Method Fosters good Vocabulary Learning Habits in Students

The design intention of this part is to understand students' vocabulary learning habits. From the statistical results of the data in the table, it is obvious that interest is the best teacher: when the teacher uses the Total Physical Response (TPR) teaching method in the experimental class, more and more students in the experimental class will pay attention to the new words in their daily life, and learn the new words in their spare time, the students in the experimental class have their own way of learning, and their interest in learning increases, and the change of the data is also big. The change in the data will be big. However, the change in the data of the control class is not obvious, because they still follow the traditional teaching method and the same learning style as before, so the data change is not significant. From the results of the data analysis, it is not difficult to find that the use of the whole body response (TPR) teaching method has made the students change their vocabulary learning habits, and cultivated the students' good habits of vocabulary learning, which has far-reaching significance for the students' English learning afterward. This has far-reaching significance for students' English learning in the future.

Total Physical Response (TPR) Method Significantly Improves Students' Vocabulary Mastery

Table 9
Comparing the Pre-test Score of EC and CC

Pre-test Score		N	M	SD	MD	t
	EC	45	5.5556	.89330	-0.02222	-0.128
	CC	45	5.5778	.75344		

P>0.05

Table 10
Comparing the Post-test Score of EC and CC

Post-test Score		N	M	SD	MD	t
	EC	45	6.33	.953	0.689	3.605
	CC	45	5.64	.857		

P<0.05

As shown in Table 9 and 10, the experimental data indicate that the vocabulary mastery of the students in the experimental class improved significantly, with test scores increasing from 5.56 to 6.33, while the control class showed a very slight improvement (from 5.58 to 5.64). The independent samples t-test showed that there was a significant difference between the vocabulary mastery levels of the two groups of students after the experiment (p = 0.01), and Cohen's d effect size was 0.906, indicating that the practical significance of the TPR method of teaching was greater in terms of improving students' vocabulary mastery.

Discussion
This study investigates the impacts of the Total Body Response (TPR) methodology in enhancing the acquisition of English vocabulary and motivation for learning among students of a rural Chinese elementary school. The effective outcome of the study was that it proved that the TPR method was considerably superior as compared to the traditional teaching methodology in enhancing the vocabulary acquisition ability and motivation to learn the English language. To be more specific, the scores of the vocabulary test showed significant improvement among the experimental group; there is also more enthusiasm to learn the language.

The results confirm that TPR works better than traditional methods. By integrating students' physical activities with language input, TPR increased the memorization and retaining of new words. The results of the test scores of the experimental group improved significantly. Their mean score on the posttest rose from 5.56 to 6.33, while the control group had less improvement in the mean score, rising from 5.58 to 5.64. This finding is in line with the results of previous studies that showed that TPR allows students to enhance their memorization and understanding of vocabulary through engaging and entertaining learning (Sumarni et al., 2022). Additionally, TPR enhanced their study skills and reduced anxiety related to learning, especially among low-level students. Student qualitative feedback indicated that they surely liked the optimistic and stress-free learning environment brought about by TPR. This finding supports Krashen's affective filtering hypothesis, which said that language acquisition may be better facilitated by a reduction of anxiety in language learning.

However, the limitations of the present study have to be considered as well. The relatively small sample size and the short duration of the experiment limit any evaluation of

TePR on the development of language abilities over the long term. Besides this, while TPR was particularly effective in teaching action-related words, its contribution became more partial regarding abstract or complex words. Fully in line with the previously presented analysis, these limitations suggest that any future research on the topic at hand should further explore to what extent TPR can be applied long-term, as well as integrated with other methods of teaching, so as to address certain more complex challenges related to language learning. Evidence from this study supports the idea that TPR significantly enhances the vocabulary acquisition and motivation of rural elementary students. Its contribution, in terms of a resource-poor environment, to the dynamic, interactive, non-threatening nature of learning cannot be utilized by traditional approaches. Further research should also be carried out by expanding the sample, extending the length of the study, and finally finding hybrid approaches that meld TPR with other instructional strategies to meet the challenge of abstracted language learning.

Conclusion

The aim of the present study is an attempt at research into the effectiveness of Total Physical Response (TPR) in teaching English vocabulary to rural primary school students in China. The focus shall be on improving students' mastery of vocabulary and motivation for learning. The research findings indicated that the approach significantly enhanced the mastery of English vocabulary among students in rural elementary schools and effectively stimulated their learning motivation. Moreover, the scores on vocabulary tests of the experimental students have distinctly improved after the experiment, and their interest and motive to learn English have notably increased. Moreover, TPR creates a comfortable learning environment as it combines body movements with the process of learning, thus helping students shake off quite an amount of learning anxiety.

This study established that TPR was immensely pedagogically viable in a resource-poor rural educational setting. It is a fresh view into the English language education of those areas strictly reliant on rote memorization and translation pedagogy. TPR does this more in an interactive and fun manner that will help students build their language acquisition along with classroom engagement. These findings confirm not only the positive role of TPR in vocabulary learning but also show its possible worth in alleviating students' studying stress and motivating them. The TPR pedagogy provides quite realistic solutions to the problems facing the teaching of the English language in rural areas and, in particular, when resources are scarce.

However, this study does have some limitations. The limitations of this study might come first from the small sample size in the scope of two classes in one school, which may not necessarily give a wide range of generalization of the results; secondly, the short duration of this study did not allow for having a good assessment of the long-term effects that TPR might have. In addition, the limited effectiveness of TPR concerning vocabulary that is complex or abstract is challenging for the wider application of the TPR approach. By increasing the sample size and prolonging the experimental period in further research, the effects of TPR pedagogy on long-term memorization can be further confirmed. Simultaneously, combinations of TPR and other teaching methods based on complicated vocabulary learning difficulties are presented in order to arrive at the best results of teaching effectiveness. The TPR will, therefore, play a positive role in teaching English in rural elementary schools. In this regard,

the makers of the educational policy have to introduce this method into the English teaching standard for elementary schools, especially for the rural areas that are devoid of various resources. In addition, it is recommended that TPR be further promoted through teacher training to help more teachers master this effective teaching tool to enhance students' English learning outcomes.

References

Abata, M., Suárez, R., Portilla, A., & Vayas, M. (2021). Effectiveness of Total Physical Response in English speaking skill in EFL beginners. *Horizontes Revista de Investigación en Ciencias de la Educación, 5*(20), 237-245.

Astutik, Y., Megawati, F., & Aulina, C. N. (2019). Total physical response (TPR): How is it used to teach EFL young learners? International Journal of Learning Teaching and Educational Research, 18(1), 92-103.

Bailey, F., & Fahad, A. (2021). Krashen revisited: Case study of the role of input, motivation, and identity in second language learning. Arab World English Journal (AWEJ), 12(1).

Cao, W., & Yu, Z. (2023). The impact of augmented reality on student attitudes, motivation, and learning achievements—a meta-analysis (2016–2023). Humanities and Social Sciences Communications, 10(1), 1-12.

Dedic, K., & Bećirović, S. (2021). Attitudes toward total physical response and the natural approach. International Journal of Education and Humanities, 1(3), 124-134.

Haidar, S., & Fang, F. (2019). English language in education and globalization: A comparative analysis of the role of English in Pakistan and China. Asia Pacific Journal of Education, 39(2), 165-176.

Huang, T. H., & Wang, L. Z. (2023). Artificial intelligence learning approach through total physical response embodiment teaching on French vocabulary learning retention. Computer Assisted Language Learning, 36(8), 1608-1632.

Ito, K., & Hilliker, S. M. (2019). Acquisition of Japanese through translation. In B. Loranc-Paszylk (Ed.), Rethinking directions in language learning and teaching at university level (pp. 53-74).

Li, J., & Wang, S. (2021). English curriculum standards in China: A review of implementation and challenges in rural areas. Journal of Language Teaching and Research, 12(5), 875-885.

Li, J., & Wen, R. (2022, June). Research on AI-assisted teaching mode for English teaching from the perspective of Total Physical Response (TPR). In 2021 International conference on Smart Technologies and Systems for Internet of Things (STS-IOT 2021) (pp. 177-181). Atlantis Press.

Llmi, P. A. D., & Anwar, K. (2022). Students' Perception of Total Physical Response Method in Teaching English Vocabulary at Ban Nonsawan School, Thailand. Journal of Languages and Language Teaching, 10(2), 266-275.

Mariyam, S. N., & Musfiroh, T. (2019). Total physical response (TPR) method in improving English vocabulary acquisition of 5-6 years old children. Tadris: Jurnal Keguruan dan Ilmu Tarbiyah, 4(2), 257-264.

Ministry of Education of the People's Republic of China. (2011). English curriculum standards for compulsory education (2011 version). Beijing Normal University Press.

Ministry of Education of the People's Republic of China. (2011). English curriculum standards for compulsory education (2022 version). Beijing Normal University Press.

Orakbayevna, K. D., Normuminovich, M., & Muxiddinovna, M. Z. (2021). English language teaching methodology for non-native speakers. Linguistics and Culture Review, 5(S3), 1721-1725.

Paramita, P. W. G. (2022). The implementation of total physical response in increasing students' participation in learning vocabulary. Journal of Educational Study, 2(1), 119-125.

Schmitt, N., & Schmitt, D. (2020). Vocabulary in language teaching. Cambridge University Press.

Supriyatin, A. A., & Argawati, N. O. (2021). The use of Total Physical Response method in teaching vocabulary at Junior High School in Cimahi. PROJECT (Professional Journal of English Education, 4(4), 548-553.

Sumarni, B., Bhatta, D. D., & Kho, S. F. C. (2022). The use of Total Physical Response in teaching vocabulary integrated with meaningful classroom interaction. Journal of Language and Literature Studies, 2(1), 23-32.

Sun, Y. (2023). The application of 'Suggestopedia' in English teaching. Journal of Education Humanities and Social Sciences, 13, 21-29.

Utkir, M., Nilufar, K., Ra'no, I., & Kuchkeldiyeva, U. (2020). The role of motivation in learning foreign language. The American Journal of Social Science and Education Innovations, 2(12), 14-21.

Wang, X., & Young, C. (2021). Implementing TPR for vocabulary learning in Chinese elementary schools: An empirical study. Language Teaching Research, 25(3), 320-335.

Wu, H., Su, H., Yan, M., & Zhuang, Q. (2023). Perceptions of Grammar-Translation Method and Communicative Language Teaching Method used in English classrooms. Journal of English Language Teaching and Applied Linguistics, 5(2), 96-104.

Xu, Z. (2013). Globalization culture and ELT materials: A focus on China. Multilingual Education, 3, 1-19.

Ye, X. (2021). EFL learning motivation differences of Chinese junior secondary school students: A mixed-methods study. Education 3-13, 49(2), 203-216.

Zeng, S. (2022). Effective ways to teach word affixes in the Chinese junior high school classroom. International Journal of Social Sciences and Humanities Invention. https://doi.org/10.18535/ijsshi/v9i06.04

Zhang, X., & Deris, F. D. (2023). Content and Language Integrated Learning Teacher Training for Elementary Education in China. International Journal of Academic Research in Business and Social Sciences, 13(13), 131-141.

Zhao, Y., & Chen, W. (2019). The application of Total Physical Response in Chinese EFL classrooms: A study on its effects on vocabulary acquisition. International Journal of Educational Research, 7(2), 54-65.