



Available Online

Journal of Education and Social Studies

ISSN: 2789-8075 (Online), 2789-8067 (Print)

<http://www.scienceimpactpub.com/jess>

EFFECTS OF TOTAL PHYSICAL RESPONSE ON VOCABULARY LEARNING IN URDU-ENGLISH DEFICIT BILINGUAL CHILDREN

Riffat Naz¹, Qaisar Jabbar^{2,*}, Muhammad Saram¹

¹Department of English Language and Literature, The University of Lahore, Sargodha Campus, Pakistan

²Department of English, Govt. Boys Degree College, Dadyal, Mirpur AJK, Pakistan

ABSTRACT

Learning vocabulary items via multiple methods and strategies (one of them is TPR) is a challenging task not only in monolingual but also in bilingual speaker[s] who developed delayed speech (autism); therefore, in the current study, it is examined effects of total physical response (TPR) to enhance the vocabulary learning (VL) in Urdu-English deficit bilingual children (UEDBC). To achieve this goal, this study adopts an experimental research design. The participants have been recruited from Mianwali Region, Pakistan. Fifty-two Urdu-English deficit bilingual children (mean age 5-7) have randomly been included in this study after obtaining consent from their parents. They are divided into two groups: (a) control (n=26) and (b) experimental (n=26). The instructional materials consisted of chunks (words) that have been selected to provide stimuli for the students. The study reports that the results of post-tests predict a significant improvement in vocabulary learning and conceiving even in the deficit bilingual children typically using the total physical response method. It vehemently indicates that bi-competence is triggered via total physical response if and only the input material is unifiedly compatible with the sensory-motor system of bilingual competence.

Keywords: Total physical response; Deficit bilinguals; Vocabulary; Bi-competence; Experimentation.

* Email: qaisarjabbar@hotmail.com

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<https://doi.org/10.52223/jess.2023.4340>

Received: September 21, 2023; Revised: December 17, 2023; Accepted: December 26, 2023

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INTRODUCTION

Language learning within multi-repository in the light of the Total Physical Response method (TRP) has huge commitments to the educational experience (expanding dynamic support, advancing by having a great time, helpful learning, and so on) and learning results (word learning, right use, imagination, and so on), inspiration in learning, and a few prerequisites (as per educator and element) not set in stone. Students are not compelled to talk at all, yet they are supposed to be prepared because it is trusted that the second/unknown dialect will be learned similarly to the first language. As a result, initial receptivity to language, comprehension, detecting bodily reactions, and then communicating are all typical (Yalcın & Sarigul, 2017; Manabe et al., 2023; Hounhanou, 2020; Sumarni et al., 2022; Hagoort & Indefrey, 2014; Paunov et al., 2022; Farisatma, 2023; Gaffar et al., 2023). Students who perceive the educator as a role model will begin to imitate their teachers over time. They start to respond to the instructor's commands. Students should be directly modified when using this strategy; instead, they should be encouraged to discuss and try to find out the situation at the same time. Attempting to address each expression of people learning another language and interfering with their discourse will adversely affect them, and the effects of learning may infect the learning capacity; this phenomenon leads to deficit (typically autism). More redresses might happen as the recent findings have been revealed (Adisti, 2020). Autism (Saram et al., 2023) is a neurodevelopmental disorder with social characteristics that range from mild to severe. It is

characterized by a barrier to the development of proportionate social and relationship abilities, unusual language improvement, and a restricted set of behaviors and interests (Jabbar et al., 2021). Autism is typically not diagnosed until the age of two or three years, and the visualization is often poor. Since autism affects so many different areas, it is a difficult illness to understand and treat. An autistic child, often known as someone with autism spectrum disorders (ASD), is one of the CSNs who has formative debilitation. ASD is a kid who has neuro-formative disorders addressed on a continuum of seriousness and set apart by dreary/limited ways of behaving (Saram et al., 2023; Ilyas et al., 2023). The Learning and vocabulary development has been enhanced via a multifaceted technique called the total physical response (TRP) method (Montgomery et al., 2022; Zohoorian et al., 2021; Higashimoto & Sawada, 2002; Hounhanou, 2020; Sumarni et al., 2022).

Total Physical Response (TPR) is a way of demonstrating language that revolves around the coordination of movement and speech (Ilyas et al., 2023) and aims to demonstrate language through physical (engine) action. It was developed by neuroscientist James Asher (Asher, 1966) in California and is based on a few traditions, including formative brain research, the learning hypothesis, and the humanistic teaching approach, as well as language-showing techniques suggested by Ayu and Pratiwi (2021). From a developmental standpoint, Asher views the development of a successful adult's second language as having a similar impact to that of a child learning their first language. He claims that language targeted at young children consists mostly of commands that children must physically comply with before responding verbally. According to Asher (1966), adults need to emphasize the processes through which children acquire their native tongue.

In the context of vocabulary development (Zohoorian et al., 2021) and language learning (Ayu & Pratiwi, 2021) among first language learner[s] and second language learner[s] (SLL) have been investigated various techniques (Huang & Wang, 2023) and constructed diverse range of strategies (Houston-Wilson & Lieberman, 2003) but there is a still research gap in the domain of deficit bilingual learners' language development (Malik, 2017; Ali et al., 2021). It is a very challenging issue in Pakistani contexts. Many studies (Kalyar et al., 2019; Shahzad et al., 2020; Ahmad et al., 2021; Ijaz et al., 2022) have been conducted on Pakistani learners and their language and communicative skills development. Language scientists have dedicated studies on bilingual context to them (Pert & Letts, 2006; Malik, 2017; Ali et al., 2021; Jabbar et al., 2021). All these findings from language learning and bilingualism predict the various results about individual linguistic competence, but the innovative step in this study is that it encompasses two distinct domains of inquiries: (a) language learning and (b) bilingualism.

Objectives

The following are the research objectives that have been formulated to conduct this study:

1. To determine the effect of the Total Physical Response method on autistic children's vocabulary learning.
2. To ensure that the Total Physical Response method is appropriate for enhancing the vocabulary of bilingual deficit children.

LITERATURE REVIEW

Autism spectrum disorder (ASD) is a neurological and developmental condition that affects how people interact with others, communicate, learn, and behave. Although autism can be diagnosed at any time of life, it is often referred to as a "formative condition" since its symptoms often manifest in the first two years of life (Saram et al., 2023). People with ASD commonly have: a) Trouble communicating and collaborating with others. b) Limited interests and uninspired behaviors. c) Symptoms that affect their ability to function in school, the workplace, and other daily activities. Since there is a broad range in the type and severity of side effects people with autism suffer, the illness is referred to as a "spectrum". ASD can be diagnosed in

people of all sexes, ethnicities, identities, and socioeconomic backgrounds. Despite the fact that ASD can be a chronic illness, medications and other treatments can improve a person's daily functioning and side effects. It is advised by the American Institute of Pediatrics that all children get an evaluation for autism. Guardians should discuss ASD screening or evaluation with their child's medical services provider (Sharma et al., 2018).

Several experts (Ahmad et al., 2021; Ayu & Pratiwi, 2021; Farisatma, 2023; Gaffar et al., 2023; Huang & Wang, 2023; Saram et al., 2023) have focused on language issues in autism since almost all children with autism have severe language impairments. When first discussing the 11 autistic children he had in his facility, he illustrated the many linguistic anomalies he had seen. After seeing 23 children with autism, he later claimed that "the features of language give a substantial and promising basis for investigation." Recent research (Huang & Wang, 2023; Farisatma, 2023) has shown that all children with autism have slowed language development (either delayed or via relapse); around 50 do not speak; Moreover, more than 75 of those who do engage in conversation exhibit odd discourse characteristics, such as *echolalia* or *pronominal inversion*. Just around 30 of those who can communicate so in some capacity using useful language. The process of learning how to communicate with people begins in the early stages. Open ways of acting are acquired from the social environment and, with time, develop into skilled, honed, and customary behaviors. The development of a few key skills is required for open capability, including the capacity to (1) take care of and connect with the real climate, (2) successfully engage in cooperative interactions with others, and (3) grasp and use articulation frameworks.

Bilingualism is an emerging, vibrant domain of inquiry. It has multiple impacts on formal language and English language teaching/learning. Vocabulary learning is a challenging task not only for monolinguals but also for bilingual speakers. The study conducted by Thordardottir et al. (1997) has revealed that bilingual interventions did not restrict the learning process of vocabulary items as the formal studies (Malik, 2017; Ali et al., 2021) on bilingualism in Pakistani context have predicted that no additional toolkit is essential to trigger to motivations, learning, and expedite the sensory-motor system of the human capacity of language learning. Malik (2017) worked on bilingual competence and argued that there is no additional device or strategy that is essential to trigger or develop the language of bilingual speakers; rather, a natural system has been installed in the human mind/brain that channelizes the human faculty of language. Ali et al. (2021) have worked on bilingual competence at the sentential level and predicted the same finding as claimed by Malik (2017), but he has argued that language learning is an act of involuntary in the human cognitive system. Saram et al. (2023) have worked on language engineering and drew the mechanics of speaking skills of autistic children of school in a totally controlled environment. He has visualized the internal mechanics of language learning via acoustic mapping and cues. The crucial difference among these studies that they are separately treat the issues of bilingualism and deficit children's issues. Saram et al. (2023) focused on monolingual children, and their study is limited to only monolingual speakers of the Mianwali region; similarly, Malik (2017), Ali et al. (2021), and Jabbar et al. (2021) focused on the Urdu-English bilingual speakers, but they are healthy bilinguals with no deficit history among these speakers have been found. With respect to methodology and research aspects, this study merges multiple domains of inquiry, such as language learning, autism, bilingualism and education, language teaching, language testing, etc.

METHODOLOGY

The research method is a systemic process to achieve the pre-determined goals and aims, so for that, this study adopts experimentally designed research and recruited Urdu-English deficit bilingual children (Fabbro, 2013; Yalcın & Sarigul, 2017). Participants were examined before and after the tests in the form of pre-tests and post-tests (Ali & Niaz, 2023).

Participants

For this study, bilingual speakers have been included after obtaining formal consent from their parents if they have shown any willingness to participate in this study. The participants (50) are deficit bilingual children in the 5-7 age range. They are declared as autistic as the medical reports of the participants have been examined. To ensure bilinguality, their parents are bilinguals; most of the children belong to families whose fathers are abroad after completing intermediate in Pakistan and their mothers are native Pakistani, but the children speak both languages (Urdu as well as English) fluently. There is an issue of delayed speech. Most of the children are under-studying in the autistic center at Mianwali Region. The participants have been divided into two groups: (a) control and (b) experimental. The number of participants in each group is the same as shown in Table 1.

Table 1. Participant details.

Sr. No	N	Gender	Age	Status	Group Type
1	26	Male	5-7	Balanced Bilingual	Control
2	26	Female	5-7	Balanced Bilingual	Experimental

Procedure

This study is experimental as two groups have been arranged on the basis of gender and number of participants along with their level of education (monolingual and bilingual). In the first stage, the participants were randomly been selected from Mianwali Region. The total number of participants was seventy eight were excluded as they are not balanced bilingual speakers, and after that, 52 participants were included in the study. They were assessed through a scale (balanced bilingual scale) that indicates language proficiency, as used by Malik (2017) and Ali et al. (2021). It was a scale named the balanced bilingual scale. According to this scale, the speakers must be proficient in two languages [L1 (Urdu) and L2 (English)] equally. In the third stage, using the TPR method, only constructed language items were arranged to give input to the pre-selected participants using two stimuli (visual and physical) in a controlled environment.

List of Vocabulary Items

In this section, linguistic items have been constructed to enhance the vocabulary of deficit bilingual children via the total physical response method. The list of vocabulary items is presented in Table 2.

Table 2. List of vocabulary items.

1	A red card	سرخ/لال
2	A blue card	نیلا
3	An orange card	مالٹائی
4	A yellow card	پیلا
5	A black card	کالا
6	A brown card	بھورا
7	A grey card	سرمئی
8	A green card	سبز
9	A purple card	جامن
10	A white card	سفید

Pre-Test

A pre-test is an evaluation measure given to members before they have gone through some sort of treatment. Re-testing is the setup of the information-gathering tool with a small group of respondents from the general population for a comprehensive overview. If problems arise in the pre-test, it is quite likely that they will also appear in the actual organization. Pre-testing is done to identify problems with the information collection tool and find viable solutions. Pre-testing ought to be conducted in conditions that are all around as comparative as possible to genuine information assortment and on populace

individuals as comparative as conceivable to those that will be examined. Cautious notes ought to be taken on the issues experienced, and potential arrangements ought to be distinguished (Ali & Niaz, 2023).

Post-Test

A post-test will be assumed from command and trial gathering to investigate the discoveries of the review. This test will be the last discovery of review on how viable a TPR strategy is on autistic kids' improvement of semantic ability. A post-test is an evaluation measure given to members after they have gotten treatment as a feature of a research review. A pre-test - post-test research configuration should furnish members with a similar evaluation measure when treatment to decide whether any progressions can be associated with the treatment. A pretest-posttest configuration is viewed as a semi-trial approach, and that implies the point of the methodology is to lay out a relationship between circumstances and logical results. In semi-exploratory research, there is no random task, which makes the methodology ideal in a field setting. Exercises for the acquisition of compound words by deficit children.

RESULTS AND DISCUSSION

According to Asher's (1966) statement, there is no guaranteed content presented at the beginning of the TPR lesson. The material's function will become increasingly important as time goes on. A TPR lesson for beginners needs the instructor's signals, exercises, and noises. The instructor can then use the general supplies, such as rulers, pencils, and other tools. The teacher may need to use more resources to aid instruction as the instructional plan develops; these materials may include images, text graphs, presentations, and so forth. Asher creates a large number of student units that may be used in a few particular settings, such as the station and the study hall. Real students can be brought into the picture if necessary. The real pupils may be brought in if necessary.

Table 3. Results of Pre and Post Tests (p=0.5).

Sr. No	Group	N	Mean	Std	t -value	Sig	Test Type
1	Control	26	30.3%	8.58%	- 0.223	0.71	Pre-test
2	Experimental	26	30.8%	8.59%			
1	Control	26	33.3%	8.98%	2.18	0.016	Post-test
2	Experimental	26	40.3%	9.58%			

Teaching Series of Vocabulary in an Action Song

Singing is something that children like. There are several action tunes. The students sing and act out the song's lyrics. An example of an action song is shown below.

*This is the way you wash your face.
 Wash your face, wash your face.
 This is the way you wash your face.
 This is the way you wash your hands.
 Wash your hands, wash your hands.
 This is the way you clean your shoes (...).
 This is the way you wash your hands.
 This is the way you brush your teeth (...).
 This is the way you brush your hair (...).
 This is the way you eat your food.
 This is the way you drink your tea (...).
 All on a Saturday morning.*

All on a Sunday morning

All on a Monday morning.

All on a Tuesday morning.

All on a Wednesday morning.

All on a Thursday morning.

All on a Friday morning.

Round applause.

Greetings.

You may be familiar with other songs that are action-packed and may be used in the same way. The teacher engaged in the following teaching activities.

The teacher said greeting first to the students,

Teacher: Good morning students? Subha bakhair (Urdu)

Students: Good morning mom... (Together)

Teacher: How are you? Kaisay hain ap sb? (Urdu)

Students: Fine... (Together)

Teacher: Ok, thank you.

Before Urdu subject was started, the Urdu teacher asked the students to pray to the Lord together.

After that, the Urdu teacher gave warming up to the students about the previous topic, for example:

Teacher: Are you ready to learn Urdu now?

Students: Ok, yes... yes... yes...

Teacher: Did you still remember class, what is this? (*The Urdu teacher show her hands to the students*)

Students: Hands... (*Together*)

Teacher: Very good. bohot achay. (Urdu) (*The teacher demonstrated clapping her hands to indicate the meaning of clapping*)

Students: hmmm... (*Nobody knows*)

Teacher: Ok, never mind if you forget. If you don't know the meaning of Imperatives? So, we learn together, ok, kia apko imperatives ka matlab pata hai? chalo hum mil k sekhein gy. (Urdu)

Students: Ok, mom... (*Together*)

Teacher: do you know about imperatives? Kia ap logon ko imperatives k baray me pata hai? (Urdu)

Students: Yes mom... (*In chorus*)

Students: (*Nobody answers*)

Teacher: Ok, today we will study about imperative. Aj hum imperatives k baray me parhein gy (Urdu)

The Urdu instructor requested that the pupils remain silent and pay close attention to the content. The researcher observed the teacher and students' interaction by employing language mixing based on the activities in the pre-teaching described above. It signifies that the instructor utilized the students' mother language to communicate the content to them in order for the pupils to respond best to the teacher's instruction (Ali & Niazi, 2023).

Findings and Discussions

The TPR method is a language teaching approach that emphasizes the use of physical actions to convey meaning in a monolingual repository, but this study has tested this in autistic children who need special attention to develop language speaking, understanding, and comprehension skills as this type of study has never conducted in Pakistani context to the best of researchers' knowledge. This approach has been used in language teaching for several decades and has been found to be effective for learners with various learning needs (Asher, 1966; Farisatma, 2023). We found that the TPR method was effective in enhancing the semantic abilities of the children. Specifically, we observed that the children were able to understand and use new words and phrases more effectively when they were taught using the TPR method. The statistical results for empirical evidence are presented in Table 3. According to (Lotter, 1967), singing, imitating, demonstrating, and imperative drilling are easy strategies to teach a foreign language in early Childhood as autistic children lack their own native language; therefore, the TPR method is adapted to teach autistic children their native language. They could practice language directly in the classroom. They also found it easier to understand the lesson explained by the teacher because the teacher gave clues to the students to try rapidly until they got the point (Ahmad, 2021). In addition, there were a few students who did not pay attention to the language learning process because they preferred to play by themselves. One of the aspects of using the TPR approach is the teacher's use of her mother tongue when teaching English (Gaffar et al., 2023). Apart from that, the researcher discovered that the professors' job was as a model (Ali et al., 2021; Jabbar et al., 2021). The instructor displayed the actions based on the topic first and then s/he asked the pupils to mimic her action (Higashimoto & Sawada, 2002). By doing so, the pupils were able to foresee it. Therefore, it is suggested that the kids find it easier to mimic rather than memorize. In this case, the researcher discovered that pupils served as mimics (Huang & Wang, 2023). The TPR makes an effort to portray this effect in the language study room. The teacher acts like a parent in the homeroom. She starts out by speaking a word ('hop') or a phrase ('look at the board') and doing an action. When the teacher issues the order, all of the pupils immediately begin the exercise. After repeating the phrase a few times, it is possible to extend this by asking the students to repeat the phrase while they complete the task. You may then ask the pupils to guide one another or the whole class once they feel confident using the phrase or expression. It is more viable on the off chance that the students are standing in a circle around the educator and you could urge them to stroll around as they do the activity (Sumarni et al., 2022). Based on the results of the second observation made during pre-teaching, the researcher concluded that the students were having fun while studying Urdu since the teacher had just encouraged them by singing a song with the words "good morning" at that moment. The goal is to greatly energize the children and boost their interest in the subject. These findings are in agreement with the result of (Ali & Niaz, 2023), who investigated explicit teaching techniques in ESL classrooms by implementing pre-testing and post-testing methods. The second observation made while teaching is really comparable to the first. Yet, it deals with a different topic. The TPR approach was applied when the teacher requested the students to utilize the imperative to show L1 vocabulary regarding a body component. We also discovered that youngsters correlate vocabulary with activities. Overall, our findings suggest that the TPR method has the potential to be an effective tool for enhancing the semantic abilities of autistic children in the context of first language acquisition.

CONCLUSION

In this study, it is predicted that bilingualism and language deficit can be merged to arrange a new domain of multifaceted areas of research. In this study, most students were interested, joyful, and enthusiastic when they entered the learning process since they could apply it immediately in the classroom. Teachers who instruct pupils with autism should use the Total Physical Response (TPR) technique to convey word meaning effectively. The TPR approach was proven to be beneficial in enhancing autistic students' knowledge of English vocabulary, and it is also effective in improving students' understanding of L1 vocabulary. Teachers of autistic children can best help them learn a language using the TPR (Total Physical Response) technique, in which they take on the dual roles of issuing orders and observing their students' responses. These findings

indicate that the techniques (TPRs) adopted to deal with autistic children are very effective not only in ESL teaching but also in bilingual teaching. It affects the vocabulary of bilingual children.

This study implies that this method, used and formulated in the current research, should be adopted by the educationist to enhance the learning problems of not only early-age learners, intermediate-level but also advanced-level learners along with deficit children who require very special care for language development. The study furthermore implicates that the method and techniques are basically therapies that can be opted for by the parents in a home setting and language speech therapist in the clinical setting to enhance the typical children's semantic abilities of language understanding and comprehension.

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