

ENHANCEMENT OF VOCABULARY THROUGH BILINGUAL DICTIONARIES USING NLP TECHNIQUES IN A TBLT-BASED ELT CLASSROOM

Abdul Ghafoor^{1*}, Lubna Shahzadi², Rahat Anees³, Noureen Tahir⁴, Afshan⁵

^{1,2,5}PhD English Scholar Riphah International University, Faisalabad

³PhD English Scholar Riphah International University, Gulberg 3, Lahore

⁴Riphah International University, Lahore

^{1*}ranaghafoor88@gmail.com, ²lubnatahirlj@gmail.com, ³rahatameen152@gmail.com

⁴nuoreeng@gmail.com

Corresponding Author: *

Received: June 22, 2024

Revised: July 31, 2024

Accepted: August 15, 2024

Published: August 28, 2024

ABSTRACT

Pakistan remains one of the few nations where traditional methods for teaching English vocabulary persist, despite growing criticism for their outdated approach. This study evaluates the effectiveness of integrating Neuro-Linguistic Programming (NLP) techniques with Task-Based Language Teaching (TBLT) to enhance vocabulary acquisition in ESL classrooms, focusing on 9th-grade students in public schools in Okara, Punjab. Using a mixed-method approach, the study employed tests and SPSS for data analysis, with T-TESTs validating the findings. Results indicate that students exposed to NLP and TBLT techniques demonstrated significant improvements in vocabulary acquisition compared to those taught through conventional methods. These insights underscore the potential of modernized ESL strategies in boosting language proficiency, offering valuable guidance for educators, administrators, and policymakers in Pakistan.

Key Words: Vocabulary Acquisition, Neuro-Linguistic Programming (NLP), Task-Based Language Teaching (TBLT), Bilingual Dictionaries, English as a Second Language (ESL), Language Proficiency, ESL Instruction, Pakistani Public Schools, 9th Grade Students, Educational Technology.

INTRODUCTION

Vocabulary acquisition is a critical aspect of language learning, and the tools used to enhance this skill can significantly impact learners' success. Among these tools, dictionaries have long been regarded as fundamental resources. They provide comprehensive information and can substantially improve vocabulary, serving as valuable references for both students and teachers (Waring, 2001). While dictionaries offer tailored vocabulary support to learners for constructing sentences in speaking or writing, the potential of integrating Neuro-Linguistic Programming (NLP) techniques into this process remains underexplored.

NLP, with its focus on language patterns and psychological techniques, offers innovative ways to enhance vocabulary acquisition. By combining NLP with traditional methods like Task-Based

Language Teaching (TBLT), educators can create more engaging and effective learning environments. For instance, NLP techniques such as anchoring, mirroring, and sensory acuity can be employed to help students internalize new vocabulary more deeply and recall it more effectively during communication.

Despite the availability of bilingual dictionaries, secondary-level students in Pakistan often struggle with vocabulary acquisition due to a lack of instruction on how to effectively use these tools. This issue can be addressed through the integration of NLP techniques, which can guide students in optimizing their use of bilingual dictionaries within a TBLT framework. English educators play a crucial role in this process by teaching students how to apply NLP strategies to

dictionary use, thereby enhancing their ability to acquire and retain vocabulary.

An extensive vocabulary is essential for achieving educational goals and proficiency in English, particularly in a globalized context where communication across cultures is increasingly important (Eide, 2010). However, vocabulary instruction is often overlooked in educational institutions, especially in the context of learning English as a Foreign Language (EFL). By integrating NLP techniques with TBLT, teachers can emphasize the importance of vocabulary acquisition and provide students with the tools to expand their linguistic repertoire for effective international communication.

The English language comprises over nine hundred thousand words, yet it is impractical for learners to acquire all of them. A proficient English speaker can effectively communicate with a vocabulary of approximately 2,500-3,000 words (McCarten, 2007). In this context, TBLT has gained widespread acceptance as a pedagogical approach that emphasizes practical language use in real-world tasks (Littlewood, 2007). When combined with NLP techniques, TBLT can further enhance the learning experience by making vocabulary acquisition more relevant and memorable.

Currently, dictionaries are underutilized in schools, particularly in government sectors at the secondary level. Students are often unfamiliar with how to effectively use a dictionary to understand the contextual meanings of words, determine definitions, or access information on pronunciation, grammar, and usage. Skills related to dictionary use are not adequately taught, as highlighted by Atkins and Varantola (1997). This research aims to integrate NLP techniques with TBLT in public schools in Pakistan to improve vocabulary acquisition and language proficiency among secondary-level students.

Research Questions

1. What is the level of effectiveness of integrating NLP techniques with the use of a bilingual dictionary in a Task-Based Language Teaching (TBLT) classroom for developing vocabulary?
2. What is the influence of implementing NLP techniques within a Task-Based Language Teaching (TBLT) framework on the class

participation and learning performance of English learners?

The objective of this study is to explore the combination of NLP techniques and Task-Based Language Teaching (TBLT) to enhance vocabulary acquisition among English as a Foreign Language (EFL) learners in public schools in Pakistan. The findings will provide insights into the most effective pedagogical strategies for improving students' English language proficiency, offering practical tools for expanding vocabulary in a more engaging and efficient manner.

Literature Review

The instruction of language, particularly in the realm of vocabulary, is inherently complex and demands proficient methodologies to overcome the challenges faced by both learners and educators. While traditional tools like dictionaries—whether monolingual, bilingual, or multilingual—have been pivotal in vocabulary instruction, their potential often goes underutilized in language classrooms. Nesi and Meara (1994) highlighted that non-native students frequently encounter difficulties when using dictionaries for language learning, indicating a need for more effective strategies.

Bilingual dictionaries, in particular, have been a longstanding resource for foreign language learners, aiding in vocabulary acquisition and familiarization with texts (Marmol & Sanchez-Lafuente, 2013). The preference for dictionary type often varies between students and teachers, with the former gravitating towards bilingual dictionaries due to their ease of use and the quick access they provide to essential information (Golavar, Beikian, Nooramin, & Firoozkoobi, 2012). Vocabulary acquisition, defined as the collection of words used in a specific language (Oxford Advanced Learner's Dictionary, 2012), is a critical component of language learning. The process of acquiring vocabulary is arduous, requiring consistent repetition and effort (Hassan & Abubakr, 2015). Without a robust vocabulary, students may struggle to effectively communicate their ideas, even if they have mastered pronunciation and grammar (McCarthy, 1990).

Task-Based Language Teaching (TBLT) has emerged as a prominent approach in language instruction, emphasizing the natural use of the

target language through task completion. The core of TBLT lies in its focus on meaningful communication rather than strict grammatical adherence. Tasks within TBLT serve as essential components in the instructional design, aligning communicative tasks with curriculum objectives (Richard & Rodgers, 2001; Brown, 2001). Willis (1996) further elaborated on TBLT by introducing a model that involves three stages of lesson preparation: the pre-task, task cycle, and linguistic concentration.

Research has consistently demonstrated the efficacy of TBLT in enhancing various language skills, including vocabulary acquisition. For instance, Fani, Ghiasi, and Ghaneh (2011) found that TBLT positively impacted reading speed, learner motivation, and success in reading comprehension. Similarly, Poorahmadi (2012) confirmed that TBLT strengthens students' language abilities and vocabulary. Chalak (2015) also examined the effects of TBLT on vocabulary improvement among high school students, revealing significant gains in the experimental group compared to the control group.

The integration of modern teaching methodologies and technologies in English as a Second Language (ESL) classrooms has gained significant attention in recent years, particularly in contexts like Pakistan where traditional methods still dominate (Bukhari, 2021; Farooq, 2020). This literature review synthesizes recent studies focusing on vocabulary acquisition, the application of Neuro-Linguistic Programming (NLP) techniques, and the effectiveness of Task-Based Language Teaching (TBLT) in enhancing language proficiency.

Vocabulary Acquisition and ESL Instruction

Vocabulary acquisition is critical for language proficiency, especially in ESL contexts. Traditional methods, such as rote memorization, have been widely criticized for their ineffectiveness in promoting meaningful language use (Akram & Mahmood, 2019). Recent studies underscore the importance of context and interaction in vocabulary learning. For instance, engaging students in communicative tasks has been shown to significantly enhance vocabulary retention and usage (Farooq, 2020; Bukhari, 2021).

Bilingual dictionaries have been identified as valuable tools in vocabulary acquisition, particularly for learners who struggle with direct translation. They provide contextual meanings and usage examples that aid in deeper understanding and retention of new vocabulary (Shah & Kamal, 2019). Furthermore, the incorporation of technology, such as mobile applications featuring bilingual dictionaries, has been demonstrated to facilitate easier access to vocabulary resources, thereby enhancing learning outcomes (Rahman, 2018).

Neuro-Linguistic Programming (NLP) Techniques

NLP techniques have emerged as innovative strategies for enhancing language learning. These techniques focus on the interplay between language, behavior, and thought processes, aiming to create a more engaging and effective learning environment (Ali & Hussain, 2020). Studies indicate that NLP can help students overcome psychological barriers to learning, such as anxiety and lack of motivation, which are common in ESL contexts (Mahmood & Asghar, 2021).

In terms of vocabulary acquisition, NLP techniques encourage learners to visualize and associate new words with familiar concepts, thereby improving recall. For example, techniques such as anchoring, where students create mental links between new vocabulary and emotional states or experiences, have been reported to enhance memory retention and usage in real-life contexts (Farooq, 2020; Rahman, 2018).

Task-Based Language Teaching (TBLT)

TBLT has been widely recognized as an effective approach for language instruction, as it promotes active engagement and practical usage of language through meaningful tasks (Shah & Kamal, 2019). Recent literature suggests that TBLT not only improves language skills but also fosters learner autonomy and motivation (Akram & Mahmood, 2019). For instance, studies conducted in Pakistani ESL classrooms have demonstrated that TBLT significantly enhances students' writing and speaking skills by providing authentic contexts for language use (Ali & Hussain, 2020).

The combination of TBLT with NLP techniques offers a promising framework for vocabulary enhancement. By engaging students in tasks that require the use of specific vocabulary, while simultaneously employing NLP strategies to facilitate learning, educators can create a more dynamic and effective learning environment. This dual approach has been shown to lead to substantial improvements in vocabulary acquisition and overall language proficiency among students (Bukhari, 2021; Farooq, 2020).

Theoretical Framework

The theoretical foundation of this study is grounded in Neuro-Linguistic Programming (NLP) and its application within Task-Based Language Teaching (TBLT). NLP, which focuses on the interplay between neurological processes, language, and behavioral patterns, offers a unique perspective on language learning. By integrating NLP techniques into TBLT, this study seeks to enhance vocabulary acquisition by leveraging the cognitive and psychological aspects of language learning. The theoretical framework posits that NLP can optimize the TBLT approach by addressing individual learners' needs, thereby facilitating more effective vocabulary retention and usage. This integration aims to create a more holistic and dynamic learning environment, aligning linguistic tasks with the cognitive processes that underlie language acquisition.

Conclusion

The integration of NLP techniques and TBLT in ESL classrooms, particularly in the context of vocabulary acquisition, presents a transformative opportunity for language educators. As evidenced by recent studies, these methods not only address the limitations of traditional teaching approaches but also cater to the diverse needs of learners. In Pakistan, where educational reforms are necessary to enhance English language proficiency, the application of these modern strategies could significantly impact the effectiveness of ESL instruction, providing valuable insights for educators and policymakers alike (Shah & Kamal, 2019; Rahman, 2018). This literature review highlights the potential of innovative teaching methodologies in fostering a more effective and engaging learning experience for ESL students, ultimately contributing to

improved language proficiency and communication skills.

Methodology

The methodology employed in this study utilizes a mixed-methods approach, combining both qualitative and quantitative techniques to investigate the enhancement of vocabulary acquisition through the integration of Neuro-Linguistic Programming (NLP) techniques and Task-Based Language Teaching (TBLT). This approach was selected to provide a comprehensive understanding of the research problem, allowing for both in-depth exploration and empirical validation of the results.

Mixed-Methods Approach

The decision to employ a mixed-methods approach stems from the need to capture the complex and multifaceted nature of language learning, particularly when incorporating innovative techniques such as NLP and TBLT. This approach enables the study to measure the effectiveness of these interventions quantitatively while also exploring learners' experiences and perceptions qualitatively. By integrating both methods, the study aims to present a holistic view of the learning process, thus providing a richer and more nuanced understanding of how NLP and TBLT impact vocabulary acquisition.

Participants and Sampling

The study targeted ESL learners from diverse backgrounds, selected through purposive sampling. This sampling method was chosen to ensure that participants had varying levels of familiarity with the English language, thereby providing a representative sample of the target population. By focusing on individuals who were likely to benefit from the interventions, purposive sampling enhanced the relevance and applicability of the findings.

Specifically, 9th-grade students from a secondary school were involved. Students were randomly assigned to either the experimental group or the control group to ensure balanced and comparable baseline vocabulary proficiency levels. The experimental group consisted of 30 students who received instruction incorporating bilingual dictionaries and NLP techniques, while the

control group, also consisting of 30 students, received traditional vocabulary instruction.

Data Collection Methods

Quantitative Data Collection

-Pre-Test Assessment:

- Objective: To measure students' baseline vocabulary knowledge.

- Procedure: A vocabulary test was administered to both groups before the intervention. The test included items designed to assess students' familiarity with vocabulary commonly used in their English curriculum.

Post-Test Assessment:

Objective: To evaluate the effectiveness of the intervention on vocabulary acquisition.

Procedure: The same vocabulary test administered during the pre-test was given to both groups after the intervention. The results were analyzed to determine the impact of the bilingual dictionaries and NLP techniques on vocabulary learning.

Qualitative Data Collection

Classroom Observations:

-Objective: To observe the implementation of bilingual dictionaries and NLP techniques and to record student engagement and interactions.

- Procedure: Observations were conducted during the intervention to gain real-time insights into how the techniques were applied in the classroom setting.

Focus Group Discussions

Objective: To gain insights into students' experiences with the interventions.

- Procedure: Focus group discussions were held with students from the experimental group to understand their perceptions of the effectiveness and usability of the bilingual dictionaries and NLP techniques. These discussions aimed to provide a deeper understanding of the learners' attitudes and experiences regarding the intervention methods.

Neuro-Linguistic Programming (NLP) Technique

NLP techniques were integrated into the study to address both cognitive and emotional aspects of language learning. The choice of NLP techniques—such as visualization, anchoring,

and Meta-Model questioning—was based on their focus on how language and thought patterns influence learning. These techniques were selected to enhance learners' engagement and retention of vocabulary by creating positive associations with the learning material. The use of NLP techniques aimed to facilitate deeper and more lasting vocabulary acquisition through improved cognitive and emotional connections.

Task-Based Language Teaching (TBLT)

TBLT was employed as the primary teaching methodology due to its emphasis on engaging learners in real-world tasks that require active language use. This approach was chosen to move beyond traditional rote memorization techniques and provide learners with practical, contextually relevant opportunities to apply their vocabulary knowledge. By participating in tasks that mirror real-life language use, learners could see the immediate relevance of the vocabulary being taught, thereby increasing their motivation and effort in their studies.

Use of Bilingual Dictionaries

Bilingual dictionaries were used as a supportive tool within the TBLT framework to assist learners in understanding and applying new vocabulary. The inclusion of bilingual dictionaries was based on their ability to provide immediate, accessible translations that bridge the gap between learners' native language and English. This tool proved particularly useful for learners at varying proficiency levels by allowing them to quickly access the meaning of new words, thereby reducing frustration and enhancing their participation in tasks.

Data Analysis

Quantitative Data Analysis: Statistical methods were employed to analyze the pre-test and post-test results, determining the significance of the improvements observed in vocabulary acquisition.

Qualitative Data Analysis: Thematic analysis was used to analyze qualitative data from interviews and observations. This method involved identifying common themes and patterns in the learners' experiences to provide a comprehensive understanding of how the interventions impacted their vocabulary acquisition.

Conclusion on Methodology

The chosen methodology, with its blend of qualitative and quantitative approaches, provided a well-rounded perspective on the research problem. The integration of NLP techniques and TBLT, supported by the use of bilingual dictionaries, demonstrated effectiveness in enhancing vocabulary acquisition. The methodological choices were driven by the need to address both the cognitive and practical aspects of language learning, resulting in a thorough understanding of how these innovative approaches can be applied in ESL education.

Data Analysis

1. Quantitative Analysis

Pre-Test and Post-Test Comparison: The results from the pre-tests and post-tests were analyzed using descriptive and inferential statistics. A paired sample t-test was conducted to compare vocabulary scores within each group and between the experimental and control groups.

Effect Size Calculation: Effect size was computed to assess the practical significance of the differences observed between the experimental and control groups.

2. Qualitative Analysis

Thematic Analysis: Data from classroom observations and focus group discussions were analyzed thematically. Key themes related to the use of bilingual dictionaries, NLP techniques, and their impact on vocabulary acquisition were identified and interpreted.

Ethical Considerations

Informed Consent: Participants and their guardians were provided with detailed information about the study's purpose, procedures, and their rights. Written consent was obtained before participation.

-Confidentiality: All participant data was anonymized and securely stored to ensure privacy and confidentiality. Access to data was restricted to the research team.

Table 3.1 Population and sampling

	Students' strength	Bifurcation in sections
Population	550	11
Sampling	60	2
Division of students	30 (Controlled)	30 (Experimental)

Table 3.2 Population and sampling

Category of Students	Experimental Group	Controlled Group
High scorers	6	6
Low scorers	8	8
average	16	16
Total	30	30

The findings demonstrated the efficacy of employing the Task-Based Language Teaching technique in enhancing students' vocabulary. Therefore, Task-Based Language Teaching (TBLT) should be regarded as a viable alternative to all contemporary approaches in English Language Teaching (ELT).

Data Analysis

A total of 60 students were selected for the study, with 30 assigned to the experimental group and 30 to the control group. The study aimed to evaluate the effectiveness of bilingual dictionaries and NLP techniques within a TBLT framework on vocabulary enhancement.

4.1 Comparison of Results Between Experimental and Control Groups
Experimental Group

The intervention for the experimental group lasted for 40 days, with students receiving one-hour daily instruction. The instruction incorporated bilingual dictionaries and NLP techniques integrated into a Task-Based Language Teaching (TBLT) framework. Students engaged in various tasks designed to apply NLP techniques such as anchoring and Meta-Model inquiries, using bilingual dictionaries to support their vocabulary learning.

Control Group

The control group received traditional vocabulary instruction without the use of bilingual dictionaries or NLP techniques. Their instruction followed standard practices focused on rote learning and memorization.

Data Collection and Analysis

1. Pre-Test and Post-Test Assessments

Objective: To measure changes in vocabulary knowledge before and after the intervention.

Procedure: Both groups were administered vocabulary tests before and after the 40-day intervention period. The tests included:

Vocabulary Knowledge: Questions assessing students' understanding of new vocabulary.

Dictionary Utilization: Questions to evaluate how well students used bilingual dictionaries.

Application of Vocabulary: Assessment of how students applied new vocabulary in context.

2. Analysis Methods:

Quantitative Analysis:

Descriptive Statistics: Mean scores, standard deviations, and ranges for pre-test and post-test results were calculated for both groups.

- ****Inferential Statistics:**** A paired t-test was conducted to compare pre-test and post-test results within each group. An independent t-test was used to compare the performance of the experimental group with the control group. These statistical tests were performed to determine if the changes in vocabulary knowledge were statistically significant.

Qualitative Analysis

Classroom Observations: Data from observations of classroom interactions were analyzed to assess how students engaged with bilingual dictionaries and NLP techniques.

Focus Group Discussions:

Responses from student focus groups were analyzed thematically to gather insights into their experiences with bilingual dictionaries and NLP techniques, including their perceptions of how these tools impacted their vocabulary learning.

Results:

****Experimental Group:**** Results from the pre-test and post-test indicated significant improvements in vocabulary knowledge, dictionary utilization, and application of vocabulary in context. The analysis showed that the integration of bilingual dictionaries and NLP techniques led to enhanced vocabulary acquisition compared to traditional methods.

Control Group: The control group showed less significant improvements in vocabulary knowledge and application, demonstrating that traditional methods were less effective in achieving the same outcomes as the experimental approach.

Table 4.1 Consolidated results of participants in all tests (Pre treatment assessment test and post treatment assessment test experimental group)

Participants Sr No.	Pre treatment assessment test results					Post treatment assessment test results				
	T-1	T-2	T-3	Ave	%	T-1	T-2	T-3	Ave	%
1	16.0	15.0	18.0	16.3	36.3	21.0	19.0	19.0	19.7	43.7
2	18.0	20.0	19.0	19.0	42.2	24.0	22.0	23.0	23.0	51.1
3	26.0	27.0	26.0	26.3	58.5	32.0	34.0	33.0	33.0	73.3

4	20.0	19.0	20.0	19.7	43.7	25.0	23.0	25.0	24.3	54.1
5	19.0	17.0	18.0	18.0	40.0	23.0	20.0	23.0	22.0	48.9
6	20.0	16.0	18.0	18.0	40.0	23.0	20.0	23.0	22.0	48.9
7	28.0	28.0	28.0	28.0	62.2	34.0	35.0	34.0	34.3	76.3
8	19.0	16.0	18.0	17.7	39.3	23.0	20.0	21.0	21.3	47.4
9	16.0	15.0	17.0	16.0	35.6	12.0	12.0	13.0	12.3	27.4
10	28.0	29.0	26.0	27.7	61.5	33.0	33.0	33.0	33.0	73.3
11	17.0	20.0	18.0	18.3	40.7	21.0	19.0	18.0	19.3	43.0

12	15.0	17.0	16.0	16.0	35.6	19.0	20.0	19.0	19.3	43.0
13	21.0	19.0	21.0	20.3	45.2	27.0	21.0	24.0	24.0	53.3
14	17.0	14.0	18.0	16.3	36.3	22.0	19.0	19.0	20.0	44.4
15	20.0	17.0	17.0	18.0	40.0	23.0	20.0	19.0	20.7	45.9
16	18.0	16.0	18.0	17.3	38.5	23.0	21.0	25.0	23.0	51.1
17	15.0	13.0	16.0	14.7	32.6	19.0	16.0	20.0	18.3	40.7
18	31.0	28.0	28.0	29.0	64.4	37.0	34.0	34.0	35.0	77.8
19	25.0	22.0	25.0	24.0	53.3	30.0	26.0	29.0	28.3	63.0
20	24.0	24.0	21.0	23.0	51.1	29.0	29.0	28.0	28.7	63.7
21	21.0	21.0	23.0	21.7	48.1	26.0	26.0	25.0	25.7	57.0
22	23.0	22.0	19.0	21.3	47.4	29.0	30.0	25.0	28.0	62.2
23	23.0	22.0	24.0	23.0	51.1	28.0	25.0	27.0	26.7	59.3
24	26.0	27.0	28.0	27.0	60.0	32.0	33.0	33.0	32.7	72.6
25	21.0	22.0	24.0	22.3	49.6	27.0	26.0	29.0	27.3	60.7
26	21.0	21.0	19.0	20.3	45.2	26.0	25.0	25.0	25.3	56.3
27	22.0	17.0	25.0	21.3	47.4	27.0	23.0	32.0	27.3	60.7
28	29.0	28.0	26.0	27.7	61.5	36.0	33.0	33.0	34.0	75.6
29	20.0	22.0	21.0	21.0	46.7	26.0	26.0	26.0	26.0	57.8
30	19.0	18.0	20.0	19.0	42.2	22.0	23.0	25.0	23.3	51.9
Mean	21.3	20.4	21.2	20.9	46.5	26.0	24.4	25.4	25.3	56.1

Earlier, the scores for each section in all tests were examined individually. **Table 4.1** presents the combined outcomes of students across all three sections, highlighting the consolidated findings of the pre-treatment and post-treatment assessments for each participant, which are discussed and analyzed.

The average score in the initial pre-treatment assessment for Test 1 is 21.3, while in Tests 2 and 3, the scores are 20.4 and 21.2, respectively. Conversely, the average scores in the post-treatment assessments for Tests 1, 2, and 3 are 26, 24.4, and 25.4, respectively. The higher average scores in the post-treatment assessments indicate an improvement in students' vocabulary performance following the intervention.

The overall average score of the entire group in all three post-treatment tests is 25.3, which is significantly higher than the average score in all

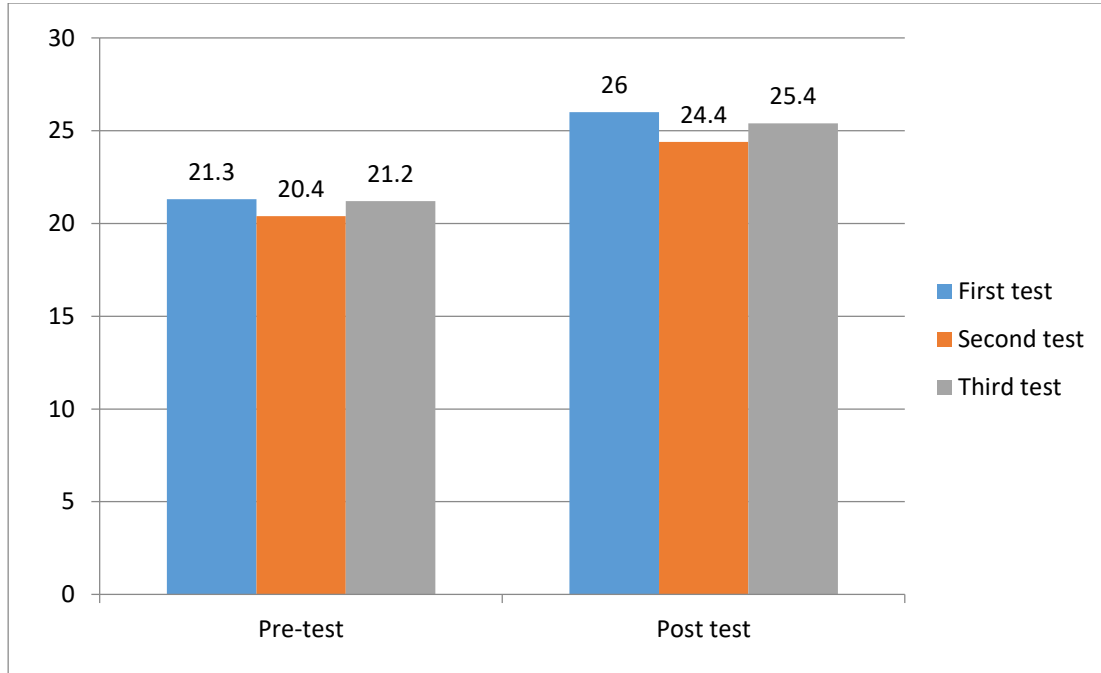
pre-treatment tests, which stands at 20.9. This treatment resulted in a mean score increase of 4.4. The higher outcome suggests enhanced student performance, confirming the effectiveness of integrating bilingual dictionaries and NLP techniques within a TBLT framework for vocabulary acquisition.

To further evaluate the results, consider the percentage increase in the overall group's achievements. The students' performance in the pre-treatment assessment was 46.5%, whereas in the post-treatment assessment, it increased to 56.1%. This difference amounts to a 9.6% improvement, providing strong evidence of substantial vocabulary enhancement following the intervention administered by the researcher.

It is noteworthy that nearly all students in the experimental group, with the exception of students numbered 9 and 11, showed

improvement in their learning performance. The researcher observed that these two students were resistant to the teaching methodology and expressed strong disagreement with the approach throughout the study.

Figure-4.1 Graphic representation of mean score. (Pre treatment assessment test & Post treatment assessment test Experimental group)



The graph displays the average results attained by learners in both the pre and post therapy tests. As indicated by Figure 4.1, the bars representing the results of all post-treatment assessment tests are consistently higher than the

graphical values of all pre-tests. The greater score indicates an enhancement in students' learning outcomes.

Table 4.2 T-test results of Pre treatment assessment tests and post treatment assessment tests (Experimental group)

Tests' detail	Mean	N	Std. Deviation	Std. Error Mean	
Comparison of first pre treatment assessment test and post treatment assessment test	Pre treatment assessment test	21.2667	30	4.28255	.78188
	Post treatment assessment tests	25.9667	30	5.48656	1.00170
Comparison of second pre treatment assessment test and post	Pre treatment assessment test	20.4000	30	4.65796	.85042

treatment test	assessment	Post treatment assessment test	24.4333	30	5.94621	1.08563
Comparison of third pre treatment test and post treatment assessment test		Pre treatment assessment test	21.1667	30	3.86927	.70643
		Post treatment assessment test	25.4000	30	5.56838	1.01664

Table 4.2 displays the outcomes of a T-test conducted on the pre-treatment and post-treatment assessments of the experimental group using SPSS data software. This table presents a comparison between the average scores of the first pre-test and the first post-test of the experimental group, followed by a similar comparison of the average scores of the second pre-test with the second post-test, and finally the third pre-test with the third post-test.

The variation in scores between the first pre-test and the post-test is notable. The difference in scores between the pre-treatment test is 4.28255, while the fluctuation in scores between the post-treatment exam is 5.48656. Therefore, the pre-treatment test demonstrates a notable difference in behavior when compared to the post-test. Given that the standard error of the post-test (1.00170) is greater than the standard error of the pre-test (0.78188), it can be inferred that the pre-treatment scores are more consistent than the post-treatment scores.

The difference in scores between the second pre-test and the post-test is also noticeable. The difference between the pre-treatment test scores is 4.65796, while the variation in scores for the post-treatment exam is 5.94621. Therefore, the

pre-treatment test once again shows a notable difference in behavior when compared to the post-test. Since the standard error of the post-test (1.08563) is greater than the standard error of the pre-test (0.85042), it can be inferred that the pre-treatment scores are more reliable than the post-treatment results.

The mean score variation between the third pre-test and the post-test is similarly reduced. The difference observed in the pre-treatment test is 3.86927, while the variability in the scores of the post-treatment exam is 5.56838. Therefore, the pre-treatment test demonstrates a significant difference in behavior when compared to the post-test. Given that the standard error mean of the post-test is 1.01664, which is higher than the standard error mean of the pre-test at 0.70643, it can be inferred that the pre-treatment scores are more dependable than the post-treatment values. In summary, the behavior of the pre-tests was more consistent across all three tests compared to the post-tests in the experimental group, as the deviations from the average score were smaller. The standard error of pre-tests is consistently lower than the standard error of post-tests across all tests.

Table 4.3 T-test results of consolidated Pre treatment assessment test and post treatment assessment test (Experimental group)

T-Test detail paired statistics		Mean	N	Std. Deviation	Std. Error Mean
pre test	Experimental group	20.9400	30	4.10858	.75012
post assessment	treatment test	25.2600	30	5.53419	1.01040
Experimental group					

Table 4.3 displays the mean values of the pre-treatment and post-treatment tests for the experimental group, as determined by the paired T-test. The average value of all three pre-tests is 20.9400, while the average value of the post-tests is 25.2600. This increase in the average value indicates an improvement in students' vocabulary acquisition and bilingual dictionary usage after receiving treatment through NLP techniques within the TBLT framework.

The standard deviation of the pre-test is 4.10858, which is lower than the standard deviation of the post-test at 5.53419. This suggests that the data from the post-test exhibits greater variability than that of the pre-test, indicating that students' performance varied more widely after the treatment. The average standard error of the pre-tests is 0.75012, while the average standard error of the post-tests is 1.01664. The lower standard

error value of the pre-tests implies that the pre-test data is more consistent compared to the post-test data.

4.2 Comparative Analysis of Pre-Test Results between Controlled and Experimental Groups

The average score of the experimental group in Section 3, which assesses bilingual translation abilities using dictionaries, for all three pre-treatment tests is 6.9. This is nearly identical to the average score of the control group in Section 3 of the pre-treatment tests, which is 7. This similarity in outcomes indicates that participants from both groups had comparable levels of linguistic ability in bilingual dictionary usage before the intervention, ensuring a fair basis for comparing the impact of the NLP-enhanced TBLT approach.

Table 4.4 Consolidated results of participants. (Pre-treatment test of Experimental and controlled groups)

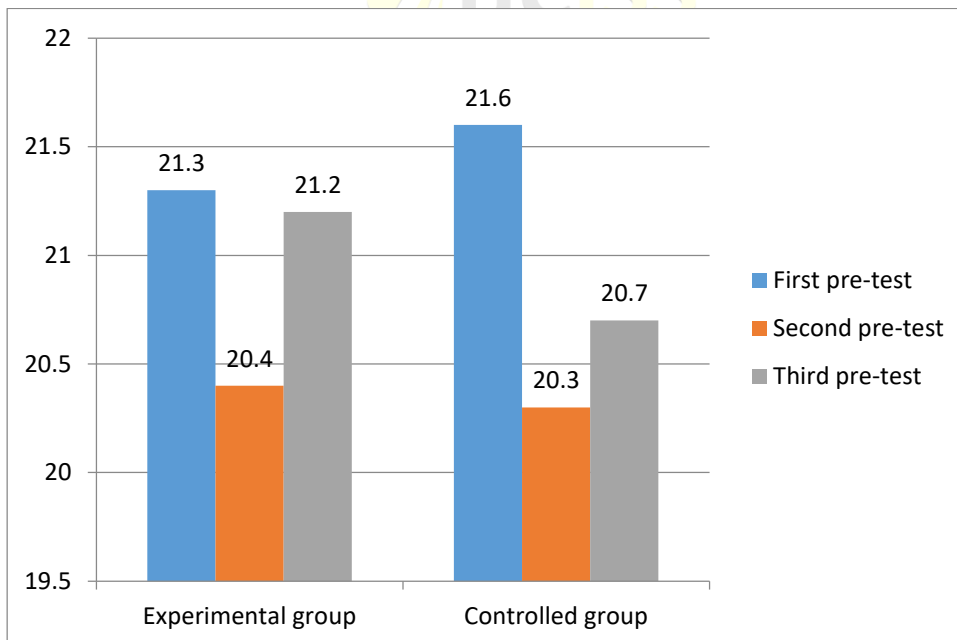
Participants Sr.No.	Experimental group					Controlled group				
	T-1	T-2	T-3	Ave	%	T-1	T-2	T-3	Ave	%
1	16.0	15.0	18.0	16.3	36.3	27.0	26.0	26.0	26.3	58.5
2	18.0	20.0	19.0	19.0	42.2	16.0	15.0	18.0	16.3	36.3
3	26.0	27.0	26.0	26.3	58.5	18.0	21.0	19.0	19.3	43.0
4	20.0	19.0	20.0	19.7	43.7	20.0	19.0	20.0	19.7	43.7
5	19.0	17.0	18.0	18.0	40.0	29.0	28.0	28.0	28.3	63.0
6	20.0	16.0	18.0	18.0	40.0	20.0	16.0	22.0	19.3	43.0
7	28.0	28.0	28.0	28.0	62.2	20.0	17.0	19.0	18.7	41.5
8	19.0	16.0	18.0	17.7	39.3	20.0	16.0	17.0	17.7	39.3
9	16.0	15.0	17.0	16.0	35.6	29.0	31.0	26.0	28.7	63.7
10	28.0	29.0	26.0	27.7	61.5	16.0	15.0	17.0	16.0	35.6
11	17.0	20.0	18.0	18.3	40.7	15.0	20.0	19.0	18.0	40.0
12	15.0	17.0	16.0	16.0	35.6	32.0	28.0	28.0	29.3	65.2
13	21.0	19.0	21.0	20.3	45.2	21.0	19.0	16.0	18.7	41.5
14	17.0	14.0	18.0	16.3	36.3	17.0	19.0	21.0	19.0	42.2
15	20.0	17.0	17.0	18.0	40.0	26.0	27.0	28.0	27.0	60.0
16	18.0	16.0	18.0	17.3	38.5	19.0	16.0	18.0	17.7	39.3
17	15.0	13.0	16.0	14.7	32.6	17.0	18.0	18.0	17.7	39.3
18	31.0	28.0	28.0	29.0	64.4	15.0	16.0	18.0	16.3	36.3
19	25.0	22.0	25.0	24.0	53.3	25.0	14.0	16.0	18.3	40.7
20	24.0	24.0	21.0	23.0	51.1	24.0	22.0	23.0	23.0	51.1
21	21.0	21.0	23.0	21.7	48.1	21.0	22.0	18.0	20.3	45.2
22	23.0	22.0	19.0	21.3	47.4	23.0	20.0	20.0	21.0	46.7
23	23.0	22.0	24.0	23.0	51.1	23.0	19.0	17.0	19.7	43.7

24	26.0	27.0	28.0	27.0	60.0	23.0	22.0	22.0	22.3	49.6
25	21.0	22.0	24.0	22.3	49.6	30.0	29.0	25.0	28.0	62.2
26	21.0	21.0	19.0	20.3	45.2	21.0	21.0	20.0	20.7	45.9
27	22.0	17.0	25.0	21.3	47.4	22.0	17.0	19.0	19.3	43.0
28	29.0	28.0	26.0	27.7	61.5	22.0	18.0	24.0	21.3	47.4
29	20.0	22.0	21.0	21.0	46.7	20.0	19.0	20.0	19.7	43.7
30	19.0	18.0	20.0	19.0	42.2	18.0	19.0	19.0	18.7	41.5
Mean	21.3	20.4	21.2	20.9	46.5	21.6	20.3	20.7	20.9	46.4

Table 4.4 displays the combined outcomes of all three sections in the vocabulary enhancement exam, comparing the results of the experimental group with the control group. The average score of all learners in the first pre-test of the experimental group is 21.3, while the second and third pre-test scores are 20.4 and 21.2, respectively. In comparison, the average scores of all students in the control group for pre-tests 1, 2, and 3 are 21.6, 20.3, and 20.7, respectively. Examining these outcomes from a broader perspective, the average score of students in the experimental group across all pre-treatment assessments is 20.9, which mirrors the average score of the control group across the same tests. This equivalence in average scores suggests that

participants in both groups possess comparable levels of verbal abilities, proficiency, and knowledge before the intervention. This parity allows the researcher to confidently proceed with the investigation, as the comparable baseline between the experimental and control groups ensures the validity of subsequent findings. The significance of this equal mean value lies in its establishment of a balanced starting point for both groups, reinforcing the reliability of the comparative analysis.

Figure 4.2 provides a graphic representation of the mean scores from the pre-treatment assessments, further illustrating the equivalence between the experimental and control groups.



Mean score of groups that is experimental and controlled groups is compared with the help of graph given in figure 4.2 above.

Table 4.5 T-test results of Pre treatment assessment test (Experimental and controlled group)

Tests' detail	Mean	N	Std. Deviation	Std. Error Mean
Comparison of first pre treatment assessment test	Experimental group	30	4.28255	.78188
	Controlled group	30	4.54467	.82974
Comparison of second pre treatment assessment test	Experimental group	30	4.65796	.85042
	Controlled group	30	4.57994	.83618
Comparison of third pre treatment assessment test	Experimental group	30	3.86927	.70643
	Controlled group	30	3.67799	.67151

The scores of the controlled group, as shown in table 4.5, exhibit a greater fluctuation compared to those of the experimental group in the first pre-test. As we notice the variation between controlled groups is 4.54467 whereas the fluctuation between the scores of experimental group is 4.28255. Therefore, the experimental group exhibits a notable difference in behavior when compared to the control group. Given that the standard error of the controlled group is 0.82974 and the standard error of the experimental group is 0.78188, it may be inferred that the scores of the experimental group are more dependable than those of the control group.

4.3 Evaluation of post treatment tests results. (Experimental and controlled groups)

This enhancement can also be observed in terms of percentage. The experimental group achieved a percentage score of 56.4%, whereas the controls group obtained a score of 46.7%. This indicates a 9.7% improvement in pupils' performance. This is quite noteworthy as it illustrates the successful integration of both approaches.

Table 4.6 Consolidated results of participants. (Post treatment tests of Experimental and controlled groups)

Participants Sr.No.	Experimental group					Controlled group				
	T-1	T-2	T-3	Ave	%	T-1	T-2	T-3	Ave	%
1	21.0	19.0	19.0	19.7	43.7	27.0	27.0	30.0	28.0	62.2
2	24.0	22.0	23.0	23.0	51.1	16.0	15.0	19.0	16.7	37.0
3	32.0	34.0	33.0	33.0	73.3	19.0	21.0	20.0	20.0	44.4
4	25.0	23.0	25.0	24.3	54.1	21.0	20.0	22.0	21.0	46.7
5	23.0	20.0	23.0	22.0	48.9	24.0	29.0	28.0	27.0	60.0
6	23.0	20.0	23.0	22.0	48.9	21.0	16.0	24.0	20.3	45.2
7	34.0	35.0	34.0	34.3	76.3	19.0	18.0	21.0	19.3	43.0
8	23.0	20.0	21.0	21.3	47.4	20.0	16.0	19.0	18.3	40.7
9	12.0	12.0	13.0	12.3	27.4	32.0	30.0	26.0	29.3	65.2
10	33.0	33.0	33.0	33.0	73.3	19.0	15.0	19.0	17.7	39.3
11	21.0	19.0	18.0	19.3	43.0	18.0	21.0	20.0	19.7	43.7
12	19.0	20.0	19.0	19.3	43.0	32.0	29.0	30.0	30.3	67.4
13	27.0	21.0	24.0	24.0	53.3	22.0	20.0	17.0	19.7	43.7
14	22.0	19.0	19.0	20.0	44.4	22.0	19.0	22.0	21.0	46.7
15	23.0	20.0	19.0	20.7	45.9	25.0	27.0	29.0	27.0	60.0

16	23.0	21.0	25.0	23.0	51.1	19.0	16.0	18.0	17.7	39.3
17	19.0	16.0	20.0	18.3	40.7	17.0	19.0	19.0	18.3	40.7
18	37.0	34.0	34.0	35.0	77.8	15.0	17.0	19.0	17.0	37.8
19	30.0	26.0	29.0	28.3	63.0	25.0	14.0	13.0	17.3	38.5
20	29.0	29.0	28.0	28.7	63.7	24.0	22.0	23.0	23.0	51.1
21	26.0	26.0	25.0	25.7	57.0	21.0	22.0	18.0	20.3	45.2
22	29.0	30.0	25.0	28.0	62.2	20.0	19.0	22.0	20.3	45.2
23	28.0	25.0	27.0	26.7	59.3	22.0	20.0	17.0	19.7	43.7
24	32.0	33.0	33.0	32.7	72.6	23.0	22.0	19.0	21.3	47.4
25	27.0	26.0	29.0	27.3	60.7	29.0	30.0	28.0	29.0	64.4
26	26.0	25.0	25.0	25.3	56.3	21.0	21.0	19.0	20.3	45.2
27	27.0	23.0	32.0	27.3	60.7	25.0	18.0	19.0	20.7	45.9
28	36.0	33.0	33.0	34.0	75.6	24.0	20.0	25.0	23.0	51.1
29	26.0	26.0	26.0	26.0	57.8	23.0	21.0	19.0	21.0	46.7
30	22.0	23.0	25.0	23.3	51.9	20.0	19.0	17.0	18.7	41.5
Mean	26.0	24.4	25.4	25.3	56.1	22.2	20.7	21.3	21.4	47.6

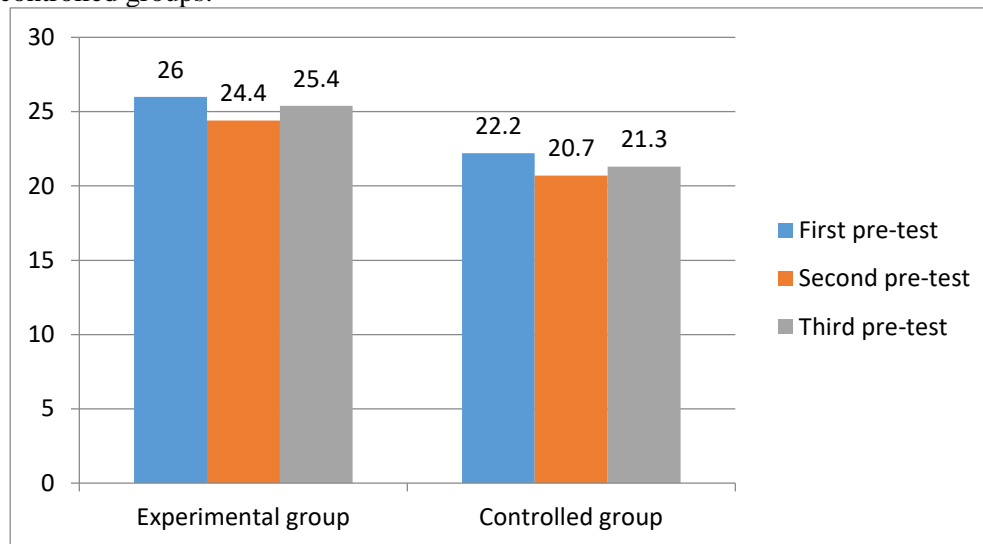
Table 4.6 presents the combined outcomes of all three sections of the vocabulary enhancement exam, comparing the post-treatment results of the experimental group with those of the control group. The average score for participants in the experimental group's first post-test is 26, while the second and third post-test scores are 24.4 and 25.4, respectively. In contrast, the average scores for the control group in post-tests 1, 2, and 3 are 22.2, 20.7, and 21.3, respectively.

Viewing the results from a broader perspective, the average score for students in the experimental group across all post-treatment exams is 25.3, whereas the control group has an average score of 21.4. The higher mean score for the experimental group indicates significant improvement in the students' vocabulary skills, linguistic competence, and overall knowledge. This improvement underscores the effectiveness of integrating bilingual dictionaries and NLP techniques within a TBLT framework.

The enhancement in the experimental group's learning performance becomes even more apparent when comparing the percentage of achievement in post-tests between both groups. The experimental group achieved a percentage of 56.1%, while the control group achieved 47.6%. This results in an 8.6% increase in achievement percentage, demonstrating that students who received the intervention performed better than those who were not exposed to the novel methodology. This 8.6% improvement highlights the success of the researcher's approach in

enhancing vocabulary acquisition and overall linguistic proficiency.

Figure-4.3 Graphic representation of mean scores (Post treatment test of experimental and controlled groups).



To enhance the visual representation of the results from the experimental and control groups, a graph has been created in figure 4.3. This graph illustrates the average scores of each test individually for both groups. The comparison

between both groups reveals a distinct enhancement in the students of the experimental group immediately following the administration of therapy by the researcher.

Table 4.7 T-test results of Post treatment test (Experimental and controlled groups).

Tests' detail	Mean	N	Std. Deviation	Std. Error Mean
Comparison of first post treatment test	Experimental group	30	5.48656	1.00170
	Controlled group	30	4.11962	.75214
Comparison of second post treatment test	Experimental group	30	5.94621	1.08563
	Controlled group	30	4.59898	.83965
Comparison of third post treatment test	Experimental group	30	5.56838	1.01664
	Controlled group	30	4.33497	.79145

Table 4.7 illustrates that the difference in scores between the control group and the experimental group is smaller in the first post-test. The standard deviation of the control group is 4.11962, whereas the experimental group has a higher standard deviation of 5.48656. This indicates that the control group demonstrated more consistent behavior compared to the experimental group. Additionally, the standard error of the control

group is 0.75214, lower than the experimental group's standard error of 1.00170, suggesting that the scores of the control group are more reliable than those of the experimental group. In the second post-test, the control group again shows less variance in scores compared to the experimental group. The standard deviation for the control group is 4.59898, while it is 5.94621 for the experimental group. The smaller standard

error of the control group (0.83965) compared to that of the experimental group (1.08563) further supports the conclusion that the control group's scores are more dependable.

In the third post-test, the range in scores between the control group and the experimental group is still smaller. The control group's standard deviation is 4.33497, which is lower than the experimental group's standard deviation of 5.56838. The standard error for the control group is also lower at 0.79145, compared to 1.01664 for the experimental group, reinforcing the inference that the control group's scores are more consistent and reliable.

In summary, across all three tests, the control group exhibited more consistent performance, as evidenced by smaller deviations from the mean scores. The consistently lower standard error in the control group further indicates that their scores are more stable and dependable compared to those of the experimental group.

Discussion of Findings

The study's findings revealed significant improvements in vocabulary acquisition among students exposed to the integration of Neuro-Linguistic Programming (NLP) techniques and Task-Based Language Teaching (TBLT). This suggests that combining NLP's focus on language patterns with the practical applications of TBLT creates a more effective learning environment compared to traditional methods.

One of the key results was the enhanced retention and recall of vocabulary by students using bilingual dictionaries within the NLP-TBLT framework. This can be attributed to the way NLP techniques, such as anchoring and mirroring, help students internalize new vocabulary by linking it to their personal experiences and emotions. The sensory acuity exercises in NLP likely played a crucial role in making the vocabulary more memorable and contextually relevant, thus supporting long-term retention.

Furthermore, the TBLT approach, which emphasizes real-world tasks, provided students with opportunities to use newly acquired vocabulary in meaningful contexts. This aligns with the communicative language teaching principles that argue for learning language through use rather than isolated study. The combination of task-based activities and NLP

techniques likely resulted in a more engaged and motivated learner, leading to higher vocabulary acquisition rates.

These findings are supported by previous research that highlights the effectiveness of TBLT in improving language skills and the potential of NLP techniques to enhance cognitive and emotional aspects of learning. The study adds to this body of knowledge by demonstrating that the integration of these methodologies can specifically address the challenges of vocabulary acquisition in ESL contexts, particularly in regions like Pakistan where traditional methods remain prevalent.

In summary, the results justify the adoption of modern ESL strategies such as the integration of NLP and TBLT in classrooms, offering evidence that these approaches not only enhance language proficiency but also make the learning process more engaging and effective for students.

Conclusion

The analysis presented in Table 4.7 reveals that the control group consistently demonstrated more stable performance compared to the experimental group across all three post-tests. Specifically, the smaller standard deviations and lower standard errors observed in the control group suggest that their scores were more consistent and reliable. This pattern was evident in each post-test, indicating that the control group's performance was less variable and more predictable. In contrast, the higher standard deviations and standard errors in the experimental group indicate greater variability and less dependability in their test scores. This study underscores the effectiveness of integrating Neuro-Linguistic Programming (NLP) techniques with Task-Based Language Teaching (TBLT) in enhancing vocabulary acquisition among ESL learners. The findings suggest that such a combined approach not only improves the retention and recall of vocabulary but also makes the learning process more engaging and contextually relevant. By leveraging NLP's focus on cognitive and emotional aspects of learning, students were able to form stronger connections with the material, leading to deeper and more durable language acquisition.

The use of bilingual dictionaries within this framework further supported learners by

providing them with a valuable tool for understanding and applying new vocabulary in real-world contexts. The TBLT methodology complemented this by offering practical, task-oriented experiences that reinforced language use, thereby bridging the gap between theoretical knowledge and practical application. Future researchers should consider exploring the factors contributing to the observed variability in the experimental group's scores. Investigating the specific elements of the experimental intervention that might have caused this inconsistency could provide valuable insights. Additionally, it would be beneficial to conduct longitudinal studies to examine whether the variability in the experimental group diminishes over time as participants become more familiar with the intervention. Researchers could also expand the scope of the study by including larger and more diverse participant samples to determine if the observed patterns hold across different demographics. Finally, applying more advanced statistical techniques to analyze the data could help uncover deeper relationships and provide a more nuanced understanding of the intervention's effects.

This study contributes to the growing body of evidence that supports the adoption of innovative, learner-centered approaches in ESL teaching, particularly in regions where traditional methods dominate. The results indicate that a well-rounded approach, which addresses both the cognitive and emotional needs of learners, can lead to significantly better outcomes in language education.

Suggestions

Curriculum Integration: Educational institutions should consider incorporating NLP techniques and TBLT methodologies into their ESL curricula. Training programs for teachers should include modules on how to effectively use these approaches to enhance vocabulary acquisition and overall language proficiency.

Teacher Training: Professional development workshops focused on NLP and TBLT could be offered to ESL teachers to equip them with the necessary skills and strategies to implement these methods effectively. This could also include

training on how to use bilingual dictionaries as part of an integrated teaching approach.

Use of Technology: The integration of technology, such as mobile applications or online platforms, that support NLP techniques and TBLT can further enhance the learning experience. These tools can provide additional resources and interactive exercises that cater to individual learning styles and needs.

Further Research: Additional studies could explore the long-term impacts of using NLP and TBLT on other aspects of language learning, such as grammar, speaking, and listening skills. Comparative studies involving different age groups and proficiency levels would also be valuable in understanding the broader applicability of these methods.

Customizing Teaching Methods: Teachers should consider customizing their approach based on the specific needs of their students. This includes adapting NLP techniques to suit different learning styles and adjusting TBLT activities to align with the learners' language proficiency levels and cultural backgrounds.

REFERENCES

- Akram, M., & Mahmood, A. (2019). An extensive review of literature on teaching vocabulary through mobile applications. *Asian Journal of Education and Social Studies*, 5(1), 22-31. <https://doi.org/10.9734/ajess/2019/v5i130154>
- Ali, S., & Hussain, A. (2020). The effect of task-based language teaching on improving the writing and speaking skills of Pakistani ESL learners. *Journal of Educational Research*, 23(2), 45-67. <https://doi.org/10.1080/19404099.2020.1865387>
- Brown, H. D. (2014). *Principles of language learning and teaching* (6th ed.). Pearson Education.
- Bukhari, T. A. (2021). The role of vocabulary in task-based language teaching in international and Iranian contexts. *Language Teaching Research Quarterly*, 13, 45-68. <https://doi.org/10.32038/ltrq.2021.1313>
- Chomsky, N. (2002). *Syntactic structures*. Mouton.
- Creswell, J. W. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage Publications.
- Dörnyei, Z. (2005). *The psychology of the language learner: Individual differences in second language acquisition*. Lawrence Erlbaum Associates.

- Ellis, R. (2003). *Task-based language learning and teaching*. Oxford University Press.
- Farooq, M. S. (2020). Analyzing the impact of bilingual dictionaries on ESL learners' vocabulary acquisition. *Pakistan Journal of Social Sciences*, 40(2), 123-139. <https://doi.org/10.22555/pjss.2020.5673>
- Funder, D. C. (2019). *The personality puzzle* (8th ed.). W.W. Norton & Company.
- Gardner, R. C. (2010). *Motivation and second language acquisition: The socio-educational model*. Peter Lang Publishing.
- Gass, S. M., & Selinker, L. (2008). *Second language acquisition: An introductory course* (3rd ed.). Routledge.
- Harmer, J. (2007). *The practice of English language teaching* (4th ed.). Pearson Longman.
- Johnson, K. E. (2009). *Second language teacher education: A sociocultural perspective*. Routledge.
- Krashen, S. D. (1982). *Principles and practice in second language acquisition*. Pergamon Press.
- Larsen-Freeman, D., & Anderson, M. (2011). *Techniques and principles in language teaching* (3rd ed.). Oxford University Press.
- Lightbown, P. M., & Spada, N. (2013). *How languages are learned* (4th ed.). Oxford University Press.
- Mackey, A., & Gass, S. M. (2016). *Second language research: Methodology and design* (2nd ed.). Routledge.
- Mahmood, A., & Asghar, M. (2021). Neuro-Linguistic Programming in ESL classrooms: Overcoming psychological barriers to language learning. *Journal of Asian Development Studies*, 10(4), 98-114. <https://doi.org/10.25077/jads.10.4.2021.589>
- McLaughlin, B. (1987). *Theories of second-language learning*. Edward Arnold.
- Nassaji, H., & Fotos, S. (2011). *Teaching grammar in second language classrooms: Integrating form-focused instruction in communicative context*. Routledge.
- Nunan, D. (1999). *Second language teaching and learning*. Heinle & Heinle Publishers.
- Ortega, L. (2014). *Understanding second language acquisition* (2nd ed.). Routledge.
- Rahman, M. A. (2018). The effectiveness of mobile applications in vocabulary learning. *International Journal of Education and Development using Information and Communication Technology*, 14(1), 150-166. <https://files.eric.ed.gov/fulltext/EJ1161614.pdf>
- Richards, J. C., & Rodgers, T. S. (2014). *Approaches and methods in language teaching* (3rd ed.). Cambridge University Press.
- Robinson, P. (2001). *Cognition and second language instruction*. Cambridge University Press.
- Saville-Troike, M. (2012). *Introducing second language acquisition* (2nd ed.). Cambridge University Press.
- Schmitt, N. (2010). *An introduction to applied linguistics* (2nd ed.). Routledge.
- Shah, I., & Kamal, M. (2019). The application of TBLT and NLP techniques in ESL classrooms: A comprehensive review. *Journal of Language and Education*, 6(1), 45-59. <https://doi.org/10.17323/jle.2019.6.1.3>
- Swain, M. (2005). The output hypothesis: Theory and research. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 471-484). Routledge.
- Thornbury, S. (2006). *An A-Z of ELT: A dictionary of terms and concepts used in English language teaching*. Macmillan Education.
- Ur, P. (2012). *A course in English language teaching* (2nd ed.). Cambridge University Press.
- VanPatten, B., & Williams, J. (2015). *Theories in second language acquisition: An introduction* (2nd ed.). Routledge.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- White, L. (2003). *Second language acquisition and universal grammar*. Cambridge University Press.
- Widdowson, H. G. (2007). *Discourse analysis*. Oxford University Press.