
DESIGN AND EVALUATION OF A LANGUAGE THERAPY-BASED ENGLISH LANGUAGE LAB FOR HIGHER EDUCATION STUDENTS IN MAYILADUTHURAI DISTRICT

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ABSTRACT

English proficiency has become a key factor in academic success and employment opportunities for higher education students. Yet those from rural and semi-urban areas often face obstacles such as limited exposure to the language, mother-tongue influence, and high levels of anxiety when using English. This study set out to design and assess a Language Therapy-Based English Language Lab for undergraduate students in Mayiladuthurai District, Tamil Nadu. We used a pre-test–post-test experimental design with a sample of 60 students selected purposively. Over eight weeks, the intervention combined language therapy techniques—phonetic correction, guided speaking, repetition, and confidence-building exercises—with digital language lab tools. Data were collected using standardised instruments measuring LSRW skills, communication confidence, and language anxiety. Paired sample t-tests and effect size (Cohen’s *d*) revealed significant improvements across all variables. The results suggest that blending therapeutic strategies with technology can enhance both linguistic competence and psychological readiness. The study offers a scalable pedagogical model for higher education institutions, particularly those in rural settings.

KEYWORDS: Language Therapy, English Language Lab, LSRW Skills, Language Anxiety, Higher Education, Experimental Study

1. INTRODUCTION

Over the past few decades, English has grown into a global medium for academic exchange, research, and professional interaction. In India, a strong command of English is often linked to better educational opportunities and career prospects. Despite this, many students from rural and semi-urban backgrounds continue to find it difficult to acquire functional proficiency in the language.

Mayiladuthurai District, situated in Tamil Nadu, represents a typical semi-urban educational context. Here, a majority of students come from Tamil-medium schooling. They face multiple hurdles: limited exposure to English outside the classroom, a strong influence of their mother tongue, and few opportunities for interactive learning. Consequently, their ability to communicate effectively in English remains constrained.

One well-recognised barrier to language learning is **language anxiety**, which includes communication apprehension, fear of negative evaluation, and test anxiety (Horwitz et al., 1986). Research has repeatedly shown that such anxiety can hamper learners’ performance, participation, and motivation (MacIntyre, 1999). Students with high anxiety levels often avoid speaking, which in turn reduces practice and slows skill development. Traditional language teaching, with its heavy emphasis on grammar and rote memorisation, has been criticised for failing to build genuine communicative competence (Cook, 2013). Although language laboratories have been introduced to provide technological support, their effectiveness is often limited because they lack personalisation and do not address the emotional side of learning.

Language therapy, originally a clinical approach, focuses on improving speech, articulation, and communication through structured, guided interventions (Dolean, 2016). When combined with digital language lab tools, it has the potential to tackle both linguistic and psychological barriers, creating a more holistic learning environment. This study therefore proposes a **Language Therapy-Based English**

Language Lab designed to enhance LSRW skills, reduce anxiety, and build confidence among higher education students in Mayiladuthurai District.

2. REVIEW OF RELATED LITERATURE

2.1 Development of LSRW Skills

The four language skills—listening, speaking, reading, and writing—are the building blocks of communicative ability. Nation (2001) argues that balanced development of all four is essential for effective communication. Listening and speaking lay the groundwork for language acquisition, while reading and writing support academic proficiency. Studies suggest that interactive, task-based approaches, especially those using technology, can significantly boost LSRW skills (Oxford, 2016). Language labs, for instance, offer immersive, self-paced learning opportunities.

2.2 Language Anxiety and Learning Outcomes

Language anxiety is a well-documented phenomenon that can seriously impede learning. Horwitz et al. (1986) introduced the concept of Foreign Language Classroom Anxiety (FLCA), demonstrating its negative effect on performance. MacIntyre (1999) later highlighted how anxiety interferes with cognitive processing. More recent work by Dewaele and MacIntyre (2014) shows that reducing anxiety leads to better participation and outcomes. Creating a supportive classroom atmosphere is therefore critical.

2.3 Effectiveness of Language Laboratories

Language laboratories have long been used to improve language skills through multimedia resources. Chen and Chung (2008) found that personalised learning environments in such labs increase engagement and results. However, many traditional labs fall short in providing individualised feedback and emotional support, which are crucial for anxious learners.

2.4 Role of Language Therapy

Language therapy employs techniques like repetition, modelling, and guided interaction. These methods have proven effective in improving articulation and fluency (Dolean, 2016). Moreover, a therapy-informed approach can help reduce anxiety and build learners' confidence by offering a safe space for practice.

2.5 Research Gap

Although a substantial body of research exists on English language laboratories and, separately, on language therapy, the two fields have largely developed in isolation. Studies on language labs tend to focus on technology integration and skill outcomes, often overlooking the psychological challenges learners face. Conversely, language therapy research has been mostly confined to clinical or remedial settings, with less attention to its potential in mainstream higher education.

Few empirical studies have systematically integrated language therapy techniques into digital language lab environments, especially for students in rural or semi-urban areas where limited English exposure and socio-cultural constraints add to the difficulty. In the context of Mayiladuthurai District, there is little evidence on whether combining technological tools with therapeutic strategies can simultaneously improve linguistic skills and reduce anxiety.

The present study aims to fill this gap by designing and empirically evaluating a Language Therapy-Based English Language Lab model tailored to the needs of higher education students in rural contexts. It provides measurable evidence of the intervention's impact on LSRW skills, communication confidence, and language anxiety.

3. Objectives of the Study

1. **To find out** the effectiveness of a Language Therapy-Based English Language Lab in improving LSRW skills.
2. **To find out** the level of communication confidence before and after the intervention.
3. **To find out** the impact of the intervention on reducing language anxiety.
4. **To find out** the overall effectiveness of language therapy techniques in English language learning.

4. Hypotheses

- There is no significant difference in LSRW skills before and after intervention
- There is no significant difference in communication confidence
- There is no significant difference in language anxiety

5. METHODOLOGY

Research Design

The study employed a single-group pre-test–post-test experimental design, suitable for measuring the effectiveness of an intervention. The study was conducted in Arts and Science Colleges in Mayiladuthurai District, Tamil Nadu, representing semi-urban educational settings.

Sample and Sampling

A total of **60 undergraduate students** were selected using purposive sampling. The selection criteria included:

- Moderate to low English proficiency
- Willingness to participate
- Regular attendance

Tools Used

English Proficiency Test (LSRW-based) – Developed and standardized based on the framework of Lyle F. Bachman (1990), focusing on communicative language ability across Listening, Speaking, Reading, and Writing skills.

Communication Confidence Scale – Adapted from the concept of communicative competence and willingness to communicate proposed by James C. McCroskey and Virginia P. Richmond (1987).

Language Anxiety Scale – Developed by Elaine K. Horwitz, Michael B. Horwitz, and Joann Cope (1986) as the Foreign Language Classroom Anxiety Scale (FLCAS).

Reliability analysis showed Cronbach’s alpha values between **0.82 and 0.88**, indicating high internal consistency (George & Mallery, 2003).

5.5 Intervention Framework

The intervention lasted **8 weeks**, structured as follows:

Week	Focus Area	Activities
1–2	Phonetics	Pronunciation drills, sound correction
3–4	Listening & Speaking	Audio tasks, guided speaking
5–6	Reading	Comprehension, vocabulary
7–8	Writing	Paragraph writing, communication

5.6 Language Therapy Techniques

The intervention incorporated a range of language therapy techniques designed to enhance both linguistic competence and communication confidence among students. These techniques included repetition and reinforcement, which helped learners internalize correct language patterns through continuous practice. Guided speaking activities provided structured opportunities for students to express themselves with support and feedback, thereby improving fluency and accuracy. Audio-visual feedback was used to enable learners to observe and correct their pronunciation and speech patterns. Additionally, role-play and simulation activities created realistic communication scenarios, allowing students to practice language use in meaningful contexts. Confidence-building exercises were also integrated to reduce anxiety and encourage active participation, ultimately fostering a positive and supportive learning environment.

5.7 Data Analysis

Paired sample t-test and Effect size (Cohen’s d) has been performed to analyse the data.

5. Hypothesis Testing

Hypothesis 1- There is no significant difference in LSRW skills before and after intervention

Table 1: LSRW Skills

Test	Mean	SD	t	d
Pre-Test	52.40	6.12	14.32	1.85

Test	Mean	SD	t	d
Post-Test	68.75	5.48		

A paired-samples t-test was conducted to examine the difference in LSRW skills before and after the intervention. The results revealed that the post-test scores (M = 68.75, SD = 5.48) were significantly higher than the pre-test scores (M = 52.40, SD = 6.12), $t(59) = 14.3$. This indicates that the Language Therapy-Based English Language Lab had a statistically significant effect on improving students' LSRW skills. Furthermore, the effect size was large (Cohen's $d = 1.85$), suggesting that the magnitude of the intervention's impact was substantial. Therefore, the null hypothesis is rejected, and it can be concluded that the intervention significantly enhanced the LSRW skills of higher education students.

HYPOTHESIS 2



There is no significant difference in communication confidence

Table 2: Communication Confidence

Test	Mean	SD	t	d
Pre-Test	48.30	5.90		
Post-Test	66.10	5.20	16.05	2.07

A paired-samples t-test was conducted to find out the difference in communication confidence before and after the intervention. The results indicated that the post-test scores (M = 66.10, SD = 5.20) were significantly higher than the pre-test scores (M = 48.30, SD = 5.90), $t(59) = 16.05$. This finding suggests that the Language Therapy-Based English Language Lab had a statistically significant effect on improving students' communication confidence. In its the effect size was found to be very large (Cohen's $d = 2.07$), indicating a substantial impact of the intervention. **Hence the null hypothesis is rejected**, and it can be concluded that the intervention significantly enhanced the communication confidence of higher education students.

HYPOTHESIS 2

THERE IS NO SIGNIFICANT DIFFERENCE IN LANGUAGE ANXIETY

Table 3: Language Anxiety

Test	Mean	SD	t	d
Pre-Test	72.15	7.10	13.87	1.79
Post-Test	54.20	6.35		

A paired-samples t-test was conducted to determine the difference in language anxiety before and after the intervention. The results revealed that the post-test scores ($M = 54.20$, $SD = 6.35$) were significantly lower than the pre-test scores ($M = 72.15$, $SD = 7.10$), $t(59) = 13.87$. This indicates that the Language Therapy-Based English Language Lab significantly reduced students' language anxiety. The effect size was large (Cohen's $d = 1.79$), demonstrating a strong practical impact of the intervention. Therefore, the null hypothesis is rejected, and it can be concluded that the intervention effectively reduced language anxiety among higher education students.

6. DISCUSSION

The results offer strong evidence that the Language Therapy-Based English Language Lab was effective across all measured outcomes. The significant improvements in LSRW skills, communication confidence, and language anxiety—coupled with large effect sizes—suggest that the intervention had both statistical and practical significance. A notable contribution of this study is its simultaneous focus on linguistic and psychological aspects of language learning. The gain in LSRW skills reflects how a structured, activity-based lab environment can facilitate balanced skill development. By systematically integrating listening, speaking, reading, and writing tasks, the intervention helped students build a well-rounded proficiency.

The rise in communication confidence is particularly striking. The use of guided speaking, role-play, and interactive exercises gave students repeated opportunities to use English in a supportive setting. As their hesitation decreased, they became more willing to participate—an essential step toward real-world communication. Perhaps most importantly, language anxiety dropped substantially. This aligns with earlier work by Horwitz et al. (1986) highlighting anxiety as a major obstacle. The language therapy techniques—repetition, phonetic correction, and positive reinforcement—created a non-threatening environment where students could gradually overcome their fear of making mistakes.

These findings also support MacIntyre's (1999) view that cognitive and affective factors are closely intertwined in language learning. By addressing emotional barriers alongside skill development, the intervention fostered a more holistic learning experience. Students not only improved their language abilities but also developed a more positive attitude toward using English.

The combination of digital tools and therapy-based strategies proved especially suitable for learners from rural and semi-urban backgrounds, who often have limited exposure to interactive English learning. Overall, the Language Therapy-Based English Language Lab offers a comprehensive model that bridges the gap between traditional instruction and modern pedagogical needs, blending technology with psychological support.

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