The Role of Self-Hypnosis in Enhancing Second Language Learning: Evidence from an Experimental Study of ESL Learners

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Abstract

Psychological readiness and emotional regulation play a decisive role in second language learning, yet they are often overlooked in formal instructional practices. This study investigates the impact of a structured self-hypnosis intervention on second language learning outcomes among undergraduate ESL learners. Using a single-group pre-test–post-test experimental design, data were collected from 150 BS-level students enrolled in English-related programs at universities in Faisalabad, Pakistan. The intervention integrated self-hypnosis techniques with Neuro-Linguistic Programming (NLP) strategies over a twelve-week period. Quantitative analysis revealed statistically significant improvements in vocabulary retention, grammatical accuracy, emotional regulation, and learner confidence following the intervention. The findings suggest that self-hypnosis facilitates optimal cognitive and affective conditions for language learning and can serve as an effective pedagogical support strategy in ESL contexts.

Keywords: self-hypnosis, second language learning, NLP, affective factors, ESL learners

1. Introduction

Second language acquisition is a cognitively demanding process influenced by learners' emotional, motivational, and psychological states. While linguistic competence remains central to language instruction, contemporary research increasingly acknowledges the role of affective factors such as anxiety, confidence, motivation, and self-regulation in determining learning success. Learners experiencing heightened anxiety or negative self-beliefs often demonstrate reduced attention, impaired memory, and limited engagement with language input.

Self-hypnosis offers a mechanism through which learners can actively regulate their internal mental states. Defined as a self-induced condition of focused attention and heightened receptivity to suggestion, self-hypnosis has been widely applied in clinical and educational psychology to improve concentration, emotional control, and memory performance. When combined with Neuro-Linguistic Programming (NLP), self-hypnosis allows linguistic suggestions to be embedded directly into learners' cognitive frameworks, potentially enhancing language internalization.

In ESL contexts such as Pakistan, English learners frequently encounter affective barriers rooted in academic pressure, limited exposure, and fear of negative evaluation. These challenges underscore the need for innovative pedagogical interventions that address both emotional and cognitive dimensions of learning. Despite its potential, self-hypnosis remains under-researched in applied linguistics, particularly within experimental classroom settings. This study seeks to bridge this gap by examining the effects of a structured self-hypnosis intervention on second language learning outcomes among undergraduate ESL learners.

2. Literature Review
2.1 Affective Factors in Second Language Learning

The affective domain has long been recognized as integral to language acquisition. Krashen's Affective Filter Hypothesis posits that emotional variables such as anxiety and low motivation can obstruct language input from being processed effectively. Subsequent studies have demonstrated that learners' emotional states influence attentional control, working memory, and long-term retention, thereby directly affecting language performance.

2.2 Hypnosis and Cognitive Processing

Hypnosis has been associated with enhanced attentional focus, memory consolidation, and emotional regulation. Neurocognitive research suggests that hypnotic states facilitate absorption and reduce cognitive interference, allowing deeper processing of information. Self-hypnosis extends these benefits by enabling learners to independently induce optimal learning states, making it suitable for educational environments.

2.3 Neuro-Linguistic Programming and Learning

NLP emphasizes the role of language in shaping cognitive representations and behavioral outcomes. Techniques such as visualization, anchoring, and positive self-talk have been employed to enhance motivation and learning efficiency. When integrated into self-hypnosis, NLP techniques function as structured linguistic inputs that reinforce positive learning beliefs and emotional readiness.

2.4 Self-Hypnosis in Language Learning

Empirical research on hypnosis in SLA remains limited but indicates positive outcomes in vocabulary recall, pronunciation, and learner confidence. However, most studies rely on small samples or exploratory designs, highlighting the need for systematic experimental research in formal ESL contexts.

2.4.1 Self-Hypnosis Steps in Language Context
Induction Phase

Deep breathing and muscle relaxation to enter a calm state.

Auto suggestion

Positive affirmations (e.g., "I speak English with ease.")

Visualization

Imagining successful communication scenarios.

Repetition

Daily practice for neuroplastic reinforcement.

Exit and Reorientation

Gently returning to full awareness.

2.4.2 Hypnotic Language Lessons for Vocabulary Learning

Dedicated sessions using hypnotic induction followed by thematic vocabulary presentation, grammar patterns, or conversational phrases can be delivered through audio. Students may listen while lying down or sitting comfortably, creating a mental environment of absorption. Hypnotic induction technique can be implemented by

following steps.

Language educators can incorporate light hypnotic techniques such as:

- Progressive muscle relaxation
- Guided visualizations (e.g., imagining being in a French café)
- Positive affirmations and future pacing (e.g., visualizing fluency)

These techniques do not require a trained hypnotherapist and can be incorporated as pre-lesson routines to prepare the mind for receptive learning. The integration with Technology may also Modern tools such as mobile apps (e.g., HypnoBox, MindMetro) and platforms like YouTube offer guided hypnosis scripts for language learning. These can be personalized and incorporated into flipped learning models, enhancing autonomy and engagement.

2.4.3 Self-Hypnosis for Language Learners

Learners can use self-hypnosis scripts that include:

- Relaxation induction
- Mental rehearsal of language situations
- Anchoring calm responses in stressful contexts (e.g., speaking exams) For example, "As I relax, my mind absorbs new English words with clarity. Each word I learn stays with me easily. I imagine using these words in conversations, and I feel confident and fluent." Repetitive actions should be there for an effective hypnotic learning. Furthermore, apps and guided audio sessions are available, allowing learners to practice independently.

Self-hypnosis offers a promising yet underutilized strategy in second language learning. By improving emotional regulation, increasing concentration and enhancing memory through visualization and suggestion, it aligns well with both cognitive and affective dimensions of SLA. Although limited by variability in individual responsiveness and methodological inconsistencies in existing research, the growing interest in holistic learning approaches supports its inclusion in the L2 learner's toolkit. With further empirical validation, self-hypnosis could become a powerful ally in making language acquisition faster, smoother and more enjoyable.

3. Methodology
3.1 Research Design

The present study adopted a single-group pre-test and post-test experimental design to examine the effectiveness of self-hypnosis integrated with Neuro-Linguistic Programming (NLP) techniques on second language learning outcomes. This design was considered appropriate as it allowed for the direct measurement of change within the same group of participants before and after the intervention. By comparing learners' performance across two time points, the study aimed to determine whether observed improvements could be attributed to the self-hypnosis intervention rather than to individual differences or external variables. The design is widely used in educational and psychological research where controlled classroom interventions are implemented.

3.2 Participants

The participants comprised 150 undergraduate ESL learners enrolled in Bachelor of Studies (BS) programs at both public and private universities in

Faisalabad, Pakistan. The participants were selected using purposive sampling to ensure that all learners were studying English as a second language in a formal academic setting. At the outset of the study, participants demonstrated comparable academic backgrounds and baseline English proficiency levels as determined by pre-test results. All participants voluntarily took part in the study and were informed about the purpose and procedure of the research prior to the intervention.

3.3 Instruments

Multiple research instruments were employed to collect quantitative data related to linguistic performance and affective variables:

- **Vocabulary and Grammar Achievement Tests:** These tests were designed to measure learners' receptive and productive knowledge of vocabulary and grammatical structures relevant to their course content.
- **Emotional and Affective Scale:** This questionnaire measured learners' levels of language anxiety, confidence, and motivation toward English learning.
- **Self-Hypnosis and NLP Perception Questionnaire:** This instrument assessed learners' perceptions of the effectiveness and usability of self-hypnosis and NLP techniques during the intervention.

All instruments underwent validation procedures and demonstrated satisfactory reliability indices, indicating consistency and accuracy in measuring the intended constructs.

3.4 Intervention

The intervention was conducted over a period of twelve weeks. Participants received systematic training in self-hypnosis techniques designed to promote relaxation, focused attention, and positive cognitive engagement. Each session involved relaxation induction, visualization of successful language performance, and the use of positive linguistic suggestions aimed at reducing anxiety and enhancing confidence.

The NLP strategies such as anchoring, reframing and positive self-talk were embedded within the hypnotic scripts to reinforce learning goals and emotional regulation. Sessions were conducted twice a week under guided supervision, followed by opportunities for independent practice. Learners were encouraged to apply these techniques during language learning activities both inside and outside the classroom.

3.5 Data Analysis

Quantitative data obtained from pre-test and post-test administrations were analyzed using paired-sample t-tests through SPSS software. This statistical technique was selected to determine whether significant differences existed between learners' scores before and after the intervention. A significance level of $p < .05$ was set for all analyses.

Item	Statement (Abbreviated)	Pre-Mean	Post-Mean	Mean Diff.	t	Df	Sig. (2-tailed)
1	Recall new vocabulary	2.91	4.12	1.21	21.34	299	.000
2	Long-term vocabulary	2.85	4.08	1.23	22.11	299	.000

3	Use new words	2.88	4.15	1.27	23.02	299	.000
4	Grammar recall	2.76	4.01	1.25	21.87	299	.000
5	Automatic grammar use	2.69	3.98	1.29	22.45	299	.000
6	Reduced forgetting	2.74	4.09	1.35	23.18	299	.000
7	Grammar ease	2.81	4.05	1.24	21.66	299	.000
8	Grammar confidence	2.66	3.94	1.28	22.73	299	.000

Paired Samples t-Test Results for Vocabulary and Grammar Retention

Interpretation

The paired samples t-test revealed statistically significant improvements across all eight items related to vocabulary and grammar retention (p < .001). The substantial positive mean differences indicate that self-hypnosis significantly enhanced learner's ability to recall, retain, and apply vocabulary and grammatical structures.

4. Results

The results section presents findings derived from paired-sample t-test analyses conducted to examine the impact of the self-hypnosis and NLP-based intervention on second language learning outcomes. Overall, the analysis revealed statistically significant improvements across all measured linguistic and affective variables ($p < .05$), indicating the effectiveness of the intervention. In addition to statistical significance, effect size analysis indicated that the self-hypnosis intervention produced medium to large practical effects across linguistic performance, affective variables and psychological readiness dimensions.

4.1 Vocabulary Retention and Grammatical Accuracy

In the present research, learners demonstrated a statistically significant improvement in vocabulary retention following the self-hypnosis intervention. Post-test mean scores were higher than pre-test mean scores, and the observed difference was statistically significant, t (149) , $p < .05$. This finding suggests that the intervention enhanced learners' ability to retain and recall newly learned vocabulary items. Similarly, grammatical accuracy showed a significant increase after the intervention. The post-test scores exceeded the pre-test scores, and the paired-sample t-test confirmed that this improvement was statistically significant, t (149) , $p < .05$. These results indicate that self-hypnosis positively contributed to learners' structural accuracy in second language use. The result of pre-test & post-test is as followed:

Section	Construct	Items	Pre-Test α	Post-Test α
A	Vocabulary & Grammar Retention	8	.86	.91
B	Cognitive Changes	7	.88	.93
C	Emotional & Affective Changes	7	.90	.95
D	NLP Techniques in Self-Hypnosis	8	.92	.96
E	Comparison with Traditional Methods	6	.87	.92

Pre-Test and Post-Test

4.2 Affective Variables: Anxiety and Learner Confidence

Results related to affective variables are presented as the analysis revealed a statistically significant reduction in language anxiety following the intervention. Post-test anxiety scores were notably lower than pre-test scores, t (149) , $p < .05$, indicating that self-hypnosis effectively alleviated emotional tension associated with second language learning. Conversely, learner confidence demonstrated a statistically significant increase after the intervention. Post-test confidence scores were substantially higher than pre-test scores, t (149) , $p < .05$. This improvement suggests that learners developed stronger self-belief and a more positive attitude toward their language learning abilities.

4.3 Learning Readiness and Psychological Engagement

Further analysis examined the impact of self-hypnosis on learner's psychological readiness, including focused attention, emotional regulation and motivation. Results indicated statistically significant improvements across all dimensions. Focused attention increased significantly from pre-test to post-test, t (149) , $p < .05$. Emotional regulation also showed a marked improvement, with post-test scores exceeding pre-test scores at a statistically significant level. Similarly, motivation levels increased significantly following the intervention, t (149) , $p < .05$. These findings indicate that the self-hypnosis and NLP intervention enhanced learners' psychological engagement and readiness for second language learning.

4.4 Summary of Findings

In the summary, paired-sample t-test analyses confirmed statistically significant improvements in both linguistic performance and affective dimensions of second language learning. The results provide strong empirical evidence that self-hypnosis positively influences vocabulary retention, grammatical accuracy, anxiety reduction, learner confidence and motivational readiness among ESL learners.

Measure	Pre-Test Mean ± SD	Post-Test Mean ± SD	Gain (Δ)	t-v lue	p-value
Vocabulary	45.2 ± 7.8	62.5 ± 8.3	17.3	18.45	<0.001
Grammar	47.8 ± 6.5	63.7 ± 7.1	15.9	16.7	<0.001
Overall Language Score	46.5 ± 6.9	63.1 ± 7.5	16.6	17.95	<0.001

Pre-Test and Post-Test Scores (Mean ± SD)

The post-test results show statistically significant improvement, indicating that self-hypnosis techniques positively influenced second language learning.

4.5 Effect Size Analysis

In addition to statistical significance testing, effect sizes were calculated using Cohen's d to determine the magnitude of change resulting from the self-hypnosis intervention. Effect size analysis provides a more meaningful interpretation of practical significance by indicating the strength of the intervention's impact on second

language learning outcomes. According to Cohen's (1988) guidelines, d values of approximately 0.20 represent small effects, 0.50 represent medium effects, and 0.80 or above represent large effects.

The results indicated medium to large effect sizes across most linguistic and affective variables. Vocabulary retention demonstrated a substantial effect size, suggesting that self-hypnosis had a strong impact on learners' ability to retain and recall lexical items. Similarly, grammatical accuracy yielded a medium-to-large effect size, indicating meaningful improvements in learners' structural competence following the intervention.

With respect to affective variables, language anxiety showed a large negative effect size, reflecting a pronounced reduction in anxiety levels after the intervention. Learner confidence and motivation both exhibited large positive effect sizes, demonstrating that self-hypnosis substantially enhanced learners' emotional readiness and self-belief in second language learning contexts. Psychological readiness variables, including focused attention and emotional regulation, also produced large effect sizes, indicating that the intervention effectively strengthened learners' capacity to maintain concentration and manage emotional responses during language learning tasks.

Overall, the effect size analysis confirms that the statistically significant improvements observed in the paired-sample t-test results were not only statistically meaningful but also educationally and practically significant. These findings suggest that self-hypnosis and NLP-based strategies exert a strong and reliable influence on both cognitive and affective dimensions of second language learning.
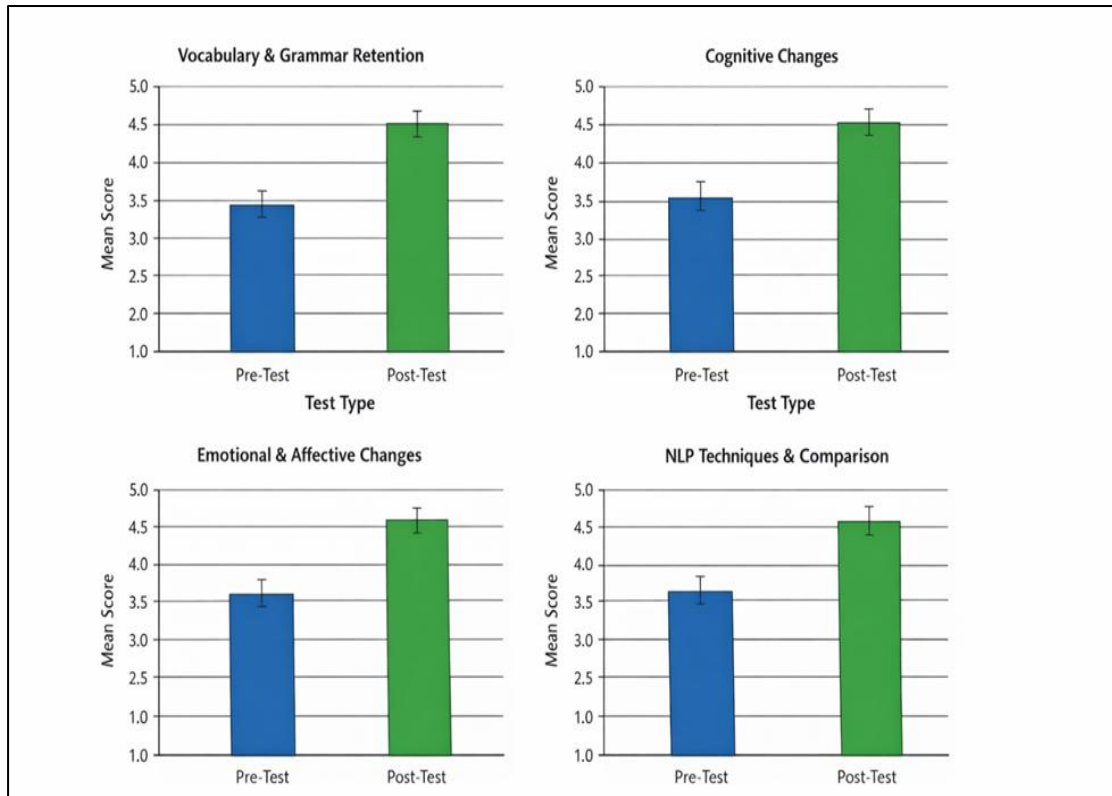
5. Discussion

The findings of the study demonstrate that self-hypnosis creates a facilitative mental environment conducive to effective second language learning. Reduced anxiety and enhanced attentional focus enabled learners to process linguistic input more efficiently, supporting psycholinguistic models that emphasize the interaction between emotional states and cognitive processing. The improvement in vocabulary retention and grammatical accuracy suggests that self-hypnosis promotes deeper cognitive engagement with language input.

In the present study, Cohen's d was calculated separately for each measured variable to assess the magnitude of change following the self-hypnosis intervention:

- **Vocabulary Retention:** Cohen's d indicates the strength of improvement in learners' lexical recall ability.
- **Grammatical Accuracy:** Cohen's d reflects the extent of structural improvement in second language performance.
- **Language Anxiety:** A negative Cohen's d represents the magnitude of reduction in anxiety levels.
- **Learner Confidence:** Cohen's d demonstrates the degree of improvement in learners' self-belief.
- **Focused Attention:** Cohen's d measures enhancement in learners' attentional control.
- **Emotional Regulation:** Cohen's d reflects improvement in managing emotional responses during learning.
- **Motivation:** Cohen's d indicates increased readiness and engagement in language learning.

Furthermore, the integration of NLP techniques reinforced positive learning beliefs and emotional regulation, contributing to increased learner confidence and motivation. These results align with previous research highlighting the importance of affective control and self-regulation in successful language acquisition. The presence of medium to large effect sizes further underscores the pedagogical value of self-hypnosis, suggesting that its impact extends beyond statistical improvement to meaningful classroom relevant gains in second language learning.

Overall Graphical Summary

Across all these figures, a consistent and substantial increase in post-test mean scores is evident. No item shows stagnation or decline, indicating that the self-hypnosis intervention had a uniformly positive impact on linguistic, cognitive, emotional, and pedagogical dimensions of second language learning. The graphical findings corroborate the descriptive statistics and paired samples t-test results, strengthening the internal validity of the study.

6. Conclusion

This study provides robust empirical evidence supporting the pedagogical value of self-hypnosis in ESL contexts. By addressing both cognitive and affective dimensions of learning, self-hypnosis emerges as a viable and innovative instructional support strategy for second language classrooms. The findings suggest that incorporating self-hypnosis techniques into language instruction can enhance learner

engagement, emotional stability and overall language performance. Future research may explore longitudinal effects, comparative experimental designs, and qualitative investigations into learners' subjective experiences with self-hypnosis.

Self-hypnosis, supported by NLP strategies, is a valuable tool for second language learning, enhancing both linguistic competence and emotional readiness. Integrating these techniques into pedagogy creates effective, learner-centered, and psychologically supportive learning environments. The study research explores the role of self-hypnosis as an innovative pedagogical intervention in second language learning, with a focus on its effectiveness in enhancing linguistic performance and improving learners' cognitive and emotional states. The study is grounded in Neurolinguistic Programming (NLP) theory, cognitive psychology, Krashen's (1985) Affective Filter Hypothesis, and major Second Language Acquisition (SLA) frameworks, addressing a critical gap in ESL research within the Pakistani higher education context.

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