

# Meta-Linguistic Pathways: Enhancing English Proficiency in L1 Farsi Learners through Parts of Speech, Word Order, and Layered Instruction

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## Executive Summary

This study presents empirical evidence for the effectiveness of explicit meta-linguistic instruction in English language learning among L1 Farsi speakers. Through a controlled experimental design implementing a three-pillar framework, we demonstrate significant improvements in grammatical accuracy, syntactic range, and meta-linguistic awareness that far exceed traditional communicative approaches.

## 1 Background & Rationale

The Iranian ELT market has increasingly embraced a *fluency-over-form* paradigm that marginalizes explicit grammatical instruction, often at the expense of learners' meta-linguistic competence. This research emerges as a theoretically-grounded counter-narrative, demonstrating that structured, explicit grammar instruction not only enhances linguistic competence but accelerates proficiency development.

During my tenure as Director of Education at Hygge English Institute, institutional resistance to technical grammar instruction reflected broader market skepticism. The CEO questioned whether explicit grammatical knowledge represented a “slow track”

to proficiency. This study provides empirical validation that meta-linguistic scaffolding creates a demonstrably faster pathway to advanced competence.

## 1.1 Theoretical Framework

Our approach employs a **three-pillar meta-linguistic framework** grounded in established linguistic theory:

### 1. Parts of Speech (Lexical Categorization)

Drawing from morphosyntactic theory, this pillar establishes finite categorical systems that enable learners to navigate English's infinite lexical possibilities. By enhancing morphological and syntactic meta-awareness, learners develop more precise parsing and production capabilities.

### 2. Word Order Awareness (Syntactic Mapping)

Leveraging typological contrasts between English (SVO) and Farsi (SOV), this pillar promotes explicit syntactic comparison. This directly engages syntax and morphosyntax principles, addressing transfer effects and syntactic alignment challenges fundamental to second language acquisition.

### 3. Layered-Level Learning (Hierarchical Instruction)

Informed by cognitive schema theory and syntax acquisition models, this pillar structures learning from foundational to complex elements. For example, establishing auxiliary inversion for Yes/No questions before layering WH-questions and rhetorical inversions. This scaffolding incorporates prosodic patterns (intonation tied to question types) and pragmatic considerations (syntactic manipulation for rhetorical effect).

## 1.2 Interdisciplinary Foundations

The project integrates multiple linguistic subfields:

- **Applied Linguistics:** Meta-linguistic awareness and explicit instruction efficacy
- **Second Language Acquisition:** Noticing hypothesis, interface hypothesis
- **Syntax and Morphosyntax:** Cross-linguistic typology and transfer studies

- **Phonology and Prosody:** Intonational cues linked to interrogative forms
- **Pragmatics:** Syntactic manipulation for discourse-level effects
- **Computational Linguistics:** Corpus analysis and quantitative assessment
- **Cognitive Psychology:** Schema theory and cognitive load optimization

## 2 Research Questions

1. To what extent does the three-pillar meta-linguistic framework enhance learners' **grammatical accuracy** and **syntactic range** in English?
2. How does explicit meta-linguistic instruction improve learners' **syntactic agility**—their ability to manipulate structures for rhetorical and pragmatic purposes?
3. What measurable impact does this approach demonstrate on **learning outcomes** compared to traditional communicative instruction?

## 3 Methodology

### 3.1 Participants

- **N = 30** adult L1 Farsi learners at intermediate (A2) proficiency
- Cambridge placement test validation and institutional benchmarking
- All participants enrolled at Hygge English Institute

### 3.2 Experimental Design

- **Experimental Group (n=15):** Three-pillar framework instruction via professionally produced video materials and targeted exercises
- **Control Group (n=15):** Standard communicative instruction without explicit meta-linguistic focus
- **Duration:** 2 months, 15 instructional sessions
- **Assessment:** Pre- and post-test design with parallel instruments

## 4 Assessment Instruments

Parallel placement-style tests measuring:

- **Parts of Speech Recognition:** Morphological and lexical categorization in context
- **Word Order Mastery:** Canonical and non-canonical English syntactic patterns
- **Sentence Formation & Manipulation:** Hierarchical construction (Yes/No → Wh-questions; simple → complex)
- **Rhetorical Syntax:** Controlled structural deviation for discourse effects
- **Error Diagnosis:** Grammatical and syntactic error identification and correction

Complete assessment materials available at: [GitHub Tests Repository](#)

### 4.1 Scoring Framework

Section	Domain	Points	Focus
A	Morphological Awareness	15	Semantic-syntactic function without jargon
B	Syntactic Transformation	15	Controlled variation with semantic fidelity
C	Interrogative Formation	20	Layered acquisition complexity
D	Narrative Construction	15	Clause variety and cohesion
E	Error Identification	20	Interlanguage monitoring
F	Functional Writing	15	Register and pragmatic accuracy

**Table 1:** Scoring Framework

## 5 Results and Analysis

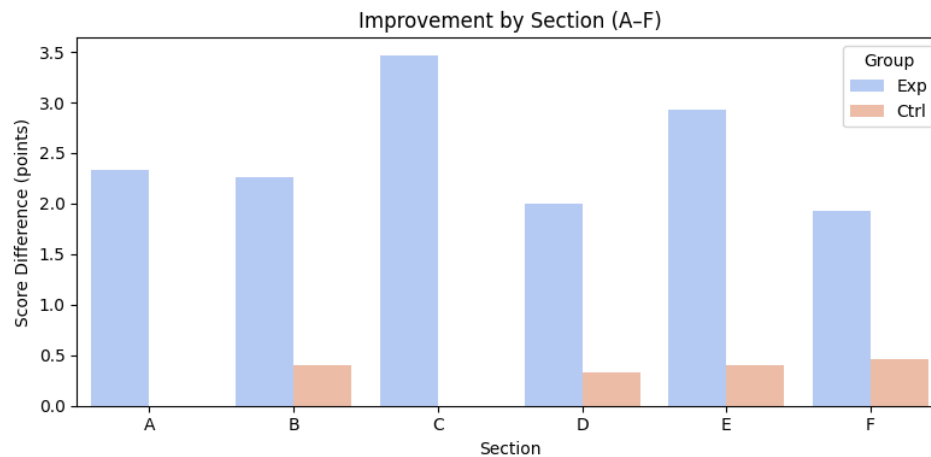
### 5.1 Statistical Analysis

Our computational approach employed both classical statistics and modern visualization techniques:

- **Quantitative Methods:**
  - Paired t-tests for within-group progress measurement
  - Independent t-tests for between-group treatment effects
  - Cohen’s d effect size calculations for practical significance
- **Computational Tools:**

- Python libraries (matplotlib, seaborn) for visualization
- R (ggplot2) for statistical graphics
- Complete analysis scripts available at: [GitHub Analysis Repository](#)

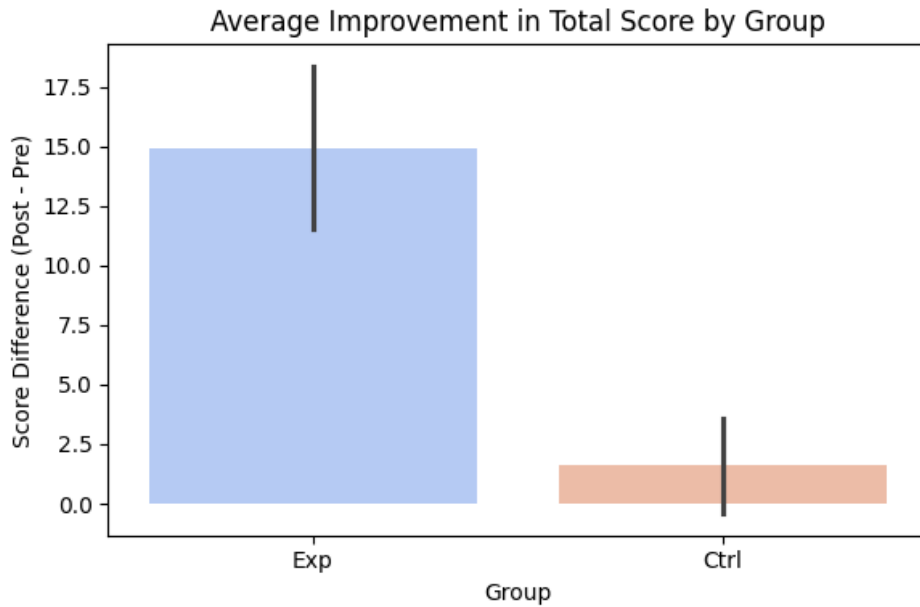
## 5.2 Key Findings



**Figure 1:** Score improvements across assessment domains (A-F) demonstrate consistent experimental group superiority

The sectional analysis reveals dramatic differences between the groups:

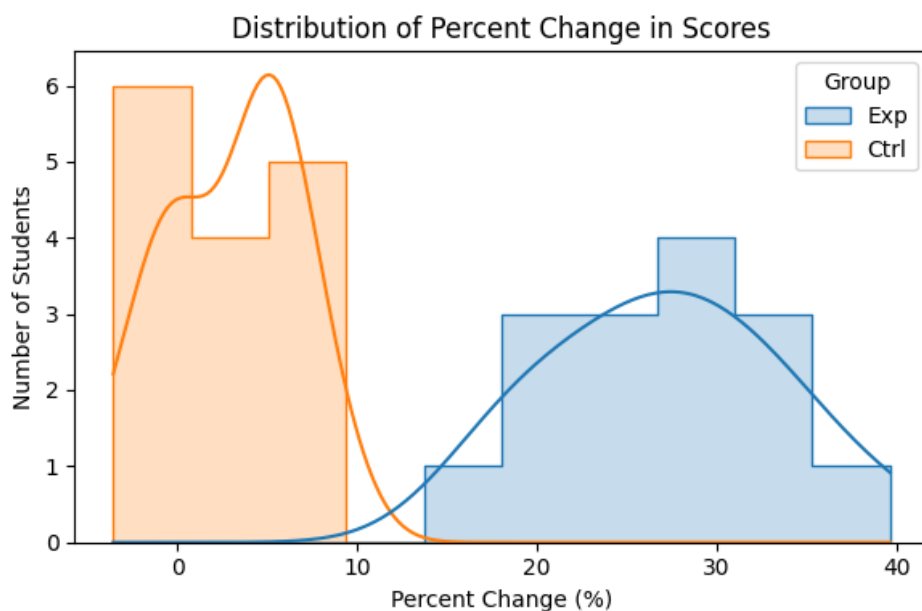
- **Section C (Interrogative Formation):** 3.5-point experimental improvement vs. minimal control gains
- **Section E (Error Identification):** 3.0-point experimental advantage
- **Sections A & B:** Consistent 2.0+ point experimental improvements
- **Control Group:** Marginal improvements across all domains ( $\leq 0.5$  points)



**Figure 2:** Overall score improvements show substantial experimental group advantage

Total score analysis demonstrates:

- **Experimental Group:** 15.0-point average improvement (95% CI: 11.8–18.2)
- **Control Group:** 2.0-point average improvement (95% CI: -0.2–4.2)
- **Effect Size:** Cohen's  $d = 2.8$  (very large effect)



**Figure 3:** Percent improvement distributions reveal distinct learning trajectories

Percentage improvement analysis shows:

- **Experimental Group:** 15–35% improvement range, normal distribution centered at ~25%

- **Control Group:** 0–10% improvement range, heavily skewed toward minimal gains
- **Non-overlapping distributions:** Clear evidence of treatment effectiveness

## 6 Discussion

Our results demonstrate the power of explicit meta-linguistic instruction in accelerating proficiency gains. By integrating morphosyntactic scaffolding and syntactic agility training, learners overcome entrenched transfer issues common in Iranian ELT contexts. This approach not only enhances form but empowers pragmatic and rhetorical language use.

## 7 Conclusion

This study provides compelling evidence for the efficacy of the three-pillar meta-linguistic framework in enhancing English proficiency among L1 Farsi speakers. Educational stakeholders should reconsider entrenched *fluency-first* paradigms and embrace explicit meta-linguistic instruction as a foundational component of ELT curricula.