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Investigating How Implicit Learning and Phonemic Symbols Impact EFL Pronunciation Instruction

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Abstract: Background: Test preparation for high-stakes English language assessments has gained significant attention in language education, yet limited research explores learners' perspectives on test preparation value. A critical gap exists between achieving required test scores and developing authentic academic communication abilities, while theoretical frameworks for evaluating test preparation from students' viewpoints remain underexplored. **Objective:** This study investigates EFL learners' perceptions of TOEFL test preparation course value using Scriven's (1998, 2007) tri-dimensional framework encompassing merit (intrinsic qualities), worth (contextual cost-effectiveness), and significance (assigned importance). **Method:** A descriptive qualitative research design was employed involving 40 EFL learners from various academic programs at Bunga Bangsa University, Cirebon, Indonesia. Participants were purposively selected based on completion of TOEFL preparation courses and successful university admission. Data were collected through semi-structured interviews lasting 45-60 minutes, supplemented by course materials and TOEFL score reports. Thematic analysis following Braun and Clarke's (2006) six-phase approach was conducted within Scriven's theoretical framework. **Results:** Findings revealed that quality (merit) was primarily associated with instructor characteristics, particularly international educational experience and TOEFL testing background, along with structured course organization aligning with four TOEFL components. Benefit (worth) was evaluated through course effectiveness in achieving required scores and developing test-taking strategies, though gaps remained between test performance and authentic academic communication. Importance (significance) encompassed facilitated university admission, learning community participation, and sustained motivation for English language development. **Implications:** This research provides crucial insights for EAP program instructors in understanding student experiences and optimizing TOEFL preparation courses. The findings contribute to addressing the growing needs of international students requiring both test success and genuine academic language competencies, offering a theoretical framework for evaluating test preparation value from learners' perspectives.

Keyword: Investigating, Learning and Phonemic Symbols Impact EFL, Pronunciation Instruction

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INTRODUCTION

Recent research in 2024 and 2025 emphasizes a renewed understanding of pronunciation instruction in EFL contexts. For example, Zhao and Lee (2024) argue that integrating pronunciation within communicative competence structures can help learners achieve better oral skills without the pressure of native-like performance. Similarly, Kumar and Rahimi (2025) suggest that multimodal and implicit learning strategies improve learners' phonological awareness and reduce fossilized pronunciation errors. These perspectives highlight that pronunciation teaching should prioritize intelligibility and listener-oriented speech rather than merely segmental accuracy.

Moreover, scholars such as Johnson et al. (2025) argue that pronunciation instruction in EFL contexts must leverage authentic exposure opportunities and scaffolded implicit learning. According to their findings, when learners receive meaningful, repeated exposure to real language samples, they develop pronunciation skills more sustainably than through explicit phonemic drills alone. These emerging views reflect a paradigm shift in pronunciation teaching, emphasizing interaction, authenticity, and communication in modern EFL classrooms.

Many researchers have discussed pronunciation instruction in classrooms. Harmer (2007) defines pronunciation as "the way we make the sounds of the language, how and where we place the stress and how we use pitch and intonation to show how we are feeling and what we mean" (p.108), emphasizing how hearers perceive sounds. Rodney (2002) presents two basic assumptions about second language phonology acquisition: the *critical period hypothesis (CPH)* - which claims adults cannot achieve native-like pronunciation in foreign languages; and the view that pronunciation is an acquired skill where focused teaching is either useless or potentially harmful.

Pronunciation has a distinguished history in second language teaching (SLT). Seidlhofer (2001) notes it "stood at the very beginning of language teaching methodology as a principled, theoretically-founded discipline, originating with the late nineteenth-century Reform Movement" (p.67). The Reform Movement prioritized spoken language in English and French higher education teaching regardless of gender (Hüllen, 2005, p.138). Phonological awareness encompasses working with larger spoken language areas including sentences, words, syllables, onsets, rimes, and phonemes.

In many contexts, where English used as a foreign language, little or no attention is paid to teaching this skill in many English classes. According to Silveira (2002), the instruction of pronunciation was absent from the second/foreign language (L2) classroom for many years due to the conventional convictions that pronunciation is not significant, we cannot teach it, and, therefore, learners can "pick up" it.

English pronunciation receives insufficient attention in EFL/ESL classrooms worldwide. Flege (2003) confirms that learners' difficulties acquiring L2 speech

sounds that don't exist or have different phonological status in L1 are well-documented in research over three decades. Morley (1991) argues the issue isn't whether to teach pronunciation, but rather the "what" and "how" of pronunciation instruction. The current problem is that many language instructors lack effective pronunciation teaching strategies and cannot identify appropriate methods for specific problems. Considering these issues and study purposes, two research questions are posed.

1. Is there any statistically significant difference between EFL learners' accuracy and intelligibility of pronunciation by implicit learning and phonemic symbols?
2. Do EFL learners receiving exposure to fluent speakers on recordings and implicit acquisition of pronunciation features would significantly outperform those receiving awareness of phonemic symbols (segmental phonology) on the instruction of pronunciation?

Review of Related Literature

1. Teaching Pronunciation

Marks (2006) argues pronunciation is essential for communicative competence in ELT, influencing motivation and input/output quality. However, it's often ignored in L2 classrooms due to teacher intimidation. Teaching pronunciation presents various challenges. Teachers often lack sufficient class time for proper pronunciation instruction. When time is available, instruction frequently consists of boring, seemingly unrelated topics. Repetitive sound practice like minimal pair work often produces discouraging results, leading both learners and instructors to abandon pronunciation instruction altogether (Nicholas, 2009).

Psychological components significantly influence pronunciation learning in ways that differ from grammar or vocabulary acquisition. The fundamental components of speaking are deeply personal, as our understanding of self and community are tied to L1 speech rhythms. These rhythms, learned in early childhood and strongly rooted in learners' minds, make it common for learners to feel uncomfortable when speaking with L2 rhythms (Hüllen, 2005).

According to Seidlhofer (1995), 'pronunciation is never an end in itself but a means of negotiating meaning in discourse, embedded in specific sociocultural and interpersonal contexts' (p.135). While many scholars study teaching segmental features (vowels and consonants), researchers (Champagne Muzar et al., 1993; Derwing et al., 1998; Hall, 1997) emphasize suprasegmental features like stress, intonation, and rhythm. Poor pronunciation endangers learners in professional and social settings, as fluent, well-educated speakers often associate bad pronunciation with less prestigious accents (Poedjosoedarmo, 2004).

2. The Function of Pronunciation in the Second-Language Classroom

Pronunciation is typically considered challenging by both instructors and learners. Like listening, it's often neglected in language instruction in favor of reading and writing, which are more likely to produce exam success in cultures emphasizing those skills. However, it seems pointless to study a living foreign language without aiming to communicate with other speakers, requiring learners to pronounce it intelligibly to various listeners. English has emerged as a global lingua franca through historical, political, or educational factors, making intelligible English pronunciation increasingly important.

Pronunciation has long-established literature in second language instruction. Seidlhofer (2001:56) notes it emerged "at the very beginning of language instruction approach as a principled, theoretically-based discipline" in the late 19th-century Reform Movement. This movement united European phoneticians, making pronunciation central to second language teaching through the mid-20th century, including English (Collins and Mees 1999; Howatt 2004). Their collaboration established the International Phonetic Association and International Phonetic Alphabet (IPA) for representing all known language sounds.

Nunan (1999) supports the intuitive pronunciation approach, citing Sato's (1985) view that some phonological features are instruction-proof and should be acquired naturally rather than forced through teaching. This aligns with Pienemann's (1984) learnability and teachability theory, suggesting that instruction beyond learners' processing levels will fail.

The visual and kinaesthetic approach to pronunciation teaching uses multisensory methods to accommodate different learning styles, reflecting increased classroom focus on pronunciation instruction (Acton, 1984; Gilbert, 1993; Brazil, 1994a, b; Pennington, 1996).

However, conflicting views exist regarding pronunciation instruction. While some scholars emphasize sound discrimination (O'Connor & Fletcher, 1989), others argue that perception may not precede production (Goto, 1971). Some take a coordinated approach advocating combined listening and repetition work (Leather & James, 1991; Pennington, 1996; Gilbert, 1993; Rogerson & Gilbert, 1990). Underhill's (1994) *Sound Foundations* exemplifies this view through a pragmatic, bottom-up approach using three-level *discovery* and *classroom toolkits* to systematically address segmental phonology via perception. Contrastive Analysis (CA) attempts to address L2 pronunciation problems, mainly in college phonetics courses (Bowler & Cunningham, 1991; Deterding & Poedjosoedarmo, 1998), though Tarone (1978) disagrees with procedures heavily relying on CA.

Nowadays, there has been an important change towards suprasegmentals triggered by the enhancing sensitivity to the interaction of prosodic qualities in spoken discourse (Brazil, 1994a, b; Gilbert, 1993; McCarthy, 1991).

3. Implicit Learning

Implicit learning research began with Reber's (1967, 1969) artificial grammar studies and expanded through dynamic systems research (Berry & Broadbent, 1984), serial reaction time studies (Nissen & Bullemer, 1987), and causal reaction time research (Lewicki, Czyzewska, & Hoffman, 1987). This field developed alongside implicit memory research (Schacter, 1987) and unconscious cognition studies (Merikle, 1992; McGlynn & Schacter, 1989; Young & De Haan, 1990). Reber (1992) proposed implicit learning as an evolutionary precursor to explicit thought, contributing to procedural knowledge development (Senge & Sterman, 1992), cognitive improvement (Gelman, 1991), and social decision-making (Hill, Lewicki, Czyzewska, & Boss, 1989; Nisbett & Wilson, 1977).

Krashen (1994, 1996) employed the explicit/implicit standard for his comparison between language learning and language acquisition. While he describes "learning" in his *Acquisition Learning Hypothesis* in terms of "conscious" and "explicit", he identifies "acquisition" mostly based on "unconscious" and "implicit". DeKeyser (2003) has differentiated implicit learning from the notion it is usually muddled with inductive learning.

METHOD

Participants

The participants of this study were 60 Canadian EFL learners who were randomly chosen from 2 intermediate level classrooms in a language instruction institute. They filled a release form and were randomly assigned into an experimental group and a control group. They were males between the ages of 14-25 years old. The type of sampling adopted for the present research was random sampling. According to Ary, et al. (2010), the best known of the probability sampling approach is simple random sampling

Research design

The design of any research is in a close relation with the objective of that study. The design of this research was in the form of mix-method which employs both qualitative and quantitative methods. It is qualitative due to using questionnaires. It is quantitative because of using a reading test and a list with some entries. Mixed methods, according to Ary, et al. (2010), combine quantitative and qualitative methods in mixed methods research. Moreover, the selection test was conducted to these participants as pre-test in the groups, and after treatment a post-testing was used.

Instruments

This study used tests (pre- and post-tests) including a reading test with text and word list, plus questionnaires for data collection. Reading aloud from written text

allows learners to practice pronouncing different words and sentences correctly. Words in the lexical list and reading passage were selected to cover areas most prone to errors based on literature, ensuring all key sounds were included in the tools. Words familiar from learners' previous studies were also considered. The reading text was an intermediate-level passage for learners to read aloud.

Cronbach's Alpha was used to identify reliability, with a coefficient of 0.72 or higher presumed for the current study. Internal consistency (coefficient alpha) was assessed for all reading aloud tests. The study's validity was based on internal validity, which inductively estimates the degree to which causal connections can be concluded regarding measures applied, research context, and overall design. Appropriate experimental procedures studying independent variable influence on dependent variables under highly controlled conditions often permit higher degrees of internal validity.

Procedure

The following procedures will be carried out to conduct the research:

60 EFL students in an English language institute, based on their willingness to participate, will participate in this study. The students will participate in the study during their scheduled class time. Three kinds of questionnaires were administered among all the participants in their classes. Before answering the questionnaires, the participants were told that it is not essential to write their names on the answer sheet. The participants were not in a testing situation and they just answered the questionnaires according to their experiences.

The first questionnaire section aimed to select learners with minimal spoken English exposure (less than 10 hours monthly). The second section assessed attitudes and motivations toward English learning. The third section evaluated learners' desire for native-like pronunciation of target forms. The selection test served as the pre-test, followed by post-testing and within-group comparison of sample mean scores.

To test null-hypotheses, tools included questionnaires completed by sixty students (control and experimental groups) and a reading test with a thirty-seven-word text (TX) and thirty-three-entry list. The text contained sounds non-existent in Persian. The selection test served as both pre- and post-test. Each participant's reading of the word list and TX was recorded separately.

Word list and passage selection for the pronunciation production test (PPT) followed recommendations for developing learners' pronunciation under controlled conditions (Dickerson, 1975; Koren, 1995). This PPT type reduces oral test assessment subjectivity.

Pronunciation for Advanced Learners of English (PALE) was used for both groups. Control group treatment consisted of two worksheets: word list from TX (Worksheet A) and TX (Worksheet B), both with translations provided.

The experimental group received five worksheets (C to G) due to treatment quality requirements. These followed alphabetical order after the control group sequence for practicality.

The third task involved brief repetition. Worksheet E provided Portuguese translation access for the experimental group. Worksheet F served as homework. Worksheet G involved a sixteen-minute mimicry session where participants listened to Native Speaker Pronunciation (NSP) and repeated it. Post-tests were analyzed in relation to pre-tests.

Data Collection

There were two crucial data-gathering procedures in this study: tests and questionnaires. When the questionnaire was applied, the questions were offered to all the learners of the sample group, who recorded and returned their responses to the questions supplied. Likewise, the data from the selection test as the pre-test of the learners in the experiment, and the data from post-testing them were obtained for the examining them.

Data Analysis

The questionnaire was administered to 60 learners to select control and experimental groups, obtaining three types of information: first, monthly exposure time to spoken English through six media (music, cinema, language schools, audio/video English learning materials, radio, and television programs); second, learners' attitudes toward English learning; third, the importance they placed on achieving native-like target language pronunciation. Pre- and post-test recording analysis by control group (CG) and experimental group (EG) used conventional statistical measures (Brown, 1988). Within-group score analysis employed t-tests to compare pre- and post-test means within the same group receiving specific treatment. The investigation included supra-segmental level comparison between native-speaker speech from experimental recordings and participating groups' speech.

RESULTS AND DISCUSSION

Results of Descriptive Statistics on the Pre-test

These statistics consisted of means, and after that standard deviations of the pre-test of the control and experimental groups were obtained (Table 1).

Table 1.
Descriptive Statistics of Experimental and Control Groups (Pre-test)

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Variables	Experimental	30	15.2667	4.40950	.66624
	Control	30	14.9000	3.71716	.67866

Based on this table, the mean scores of control group and experimental group in pre-test exam are statistically similar.

Normal Distribution of Variables

In this part, the research hypotheses were tested to investigate the main objectives of the study. This examination required the normal distribution for the dependent variable. Therefore, the normality of the distribution for overall impact by Kolmogorov-Smirnov Test was determined (Table 2).

Table 2.
Kolmogorov-Smirnov Test of Normality for of Overall Effect

Variable	Z	Sig. (*p*-value)
Implicit learning	1.196	0.114
Phonemic symbols	1.003	0.103
Reading aloud test	1.128	0.009

This Table reveals the outcomes of Kolmogorov-Smirnov Test. Since *p*–value of all kinds of variables were greater than 0.05, and the statistics Z was not significant. It means that the distribution was normal and the t-test was valid.

The Questionnaire

In the inset, the researcher used the questionnaire to the sixty learners from which control group (CG) and experimental group (EG) were chosen, and it was designed to obtain three kinds of information. By having the learners' answer the first section of the questionnaire, the goal was to select learners having as little exposure to spoken form as possible. The first was the monthly amount of time that the learners were involved in spoken form of English via various media. Hence, learners having less than 10 hours monthly exposure to English language took part in in the experiment, as it was approved afterwards by the pre-test outcomes. The answers to the second section of the questionnaire revealed learners' attitudes and motivations towards learning English.

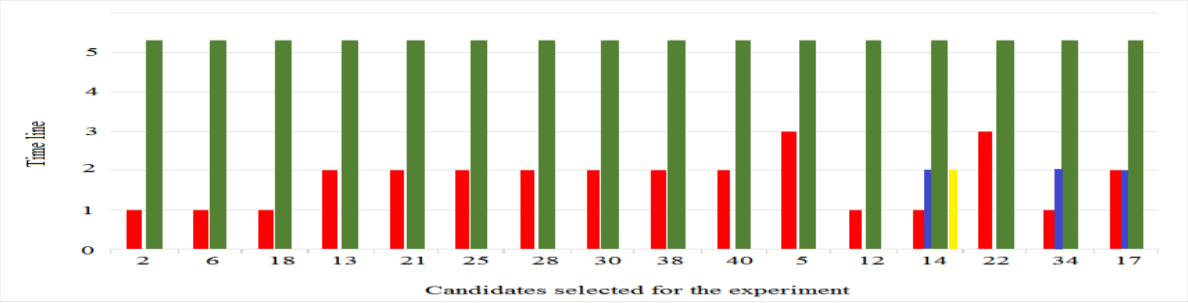

Figure.1. Chosen Learner for the Experiment Via Various Media.

Furthermore, twenty-nine per cent of the learners said they need English so that they can comprehend songs and films; but merely a few of them (13%) expressed the requirement to learn English and to read books (Figure 4.2). Perhaps the reason for the learners' little interest in learning English for reading books and magazines was that pronunciation is not significant for university entrance exams and of course there is very little consideration on it in the high schools' final exams and also the lack of the instructional system in Canada.

The third response type assessed the importance learners placed on achieving native-like pronunciation of the target language. Learners were asked whether pronunciation accuracy or communication success was their priority. Eighty-one percent answered they wanted to display good pronunciation, while seventy-nine percent responded favorably when asked if they wanted to achieve native-like pronunciation.

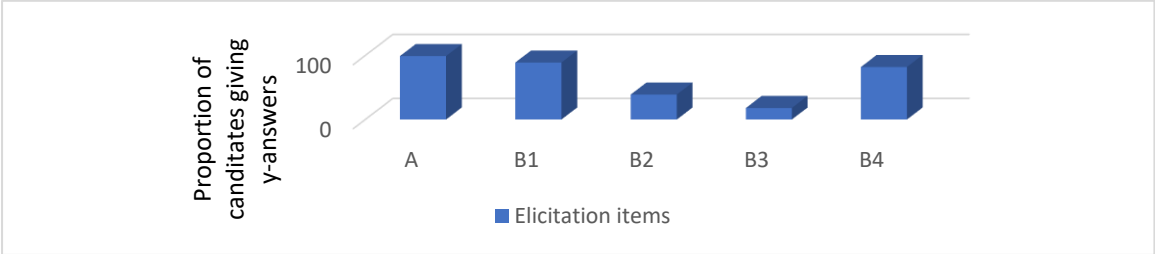

Figure. 2. Candidates' Attitudes Toward Learning English

A = I need to acquire English
Reasons for learning English:
B1 = to pass university entrance / proficiency exams
B2 = to comprehend songs / films
B3 = to read magazines/books/..
B4 = for my future job

Nonetheless, merely thirty-two per cent of the learners approved to take part in the experiment on formal pronunciation teaching (FPT) (Figure 3).

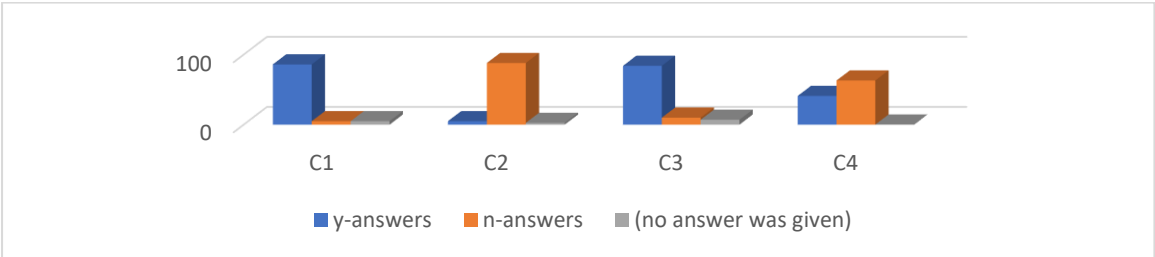

Fig. 3. Respondents' Attitudes Towards Pronunciation Accuracy

C1 = In my opinion, pronunciation accuracy is utmost priority while learning an L2.
C2 = In my opinion, interaction, despite faulty pronunciation, is utmost priority while learning an L2.
C3 = I want to obtain native-like pronunciation of an L2.
C4 = I would volunteer to take part in an experiment on English pronunciation teaching.

Learners with a minimum of four "yes" answers in part two of the questionnaire were assigned to experimental and control groups. The selection of CG and EG learners was based primarily on their answers to the first part and their willingness to participate (recorded in part three). Most learners' responses to other items in this part and all items in the second part would not allow selection based solely on those criteria..

Intra-rater Evaluation of the Pre- And Post-Tests

The researchers conducted three assessment rounds: R1 evaluated only the word/phrase reading section, R2 assessed only the text reading section, and R3 evaluated both parts of the pre- and post-tests for control and experimental groups. This approach enabled separate t-tests for each test section, as shown in Tables 3 and 4, with intra-rater reliability calculated using the provided formula.

$$\frac{n(XY) - (X)(Y)}{[nX2 - (X)2][nY2 - (Y)2]}$$

Control group reliability was assessed using KR-21, while experimental group used Pearson correlation. High correlations were found for the control group: r = .73 (R1 vs R3, first section) and r = .67 (R2 vs R3, second section) on the pretest (Table 3). For the experimental group, reliability was lower: r = .60 (R1 vs R3, first section) and r = .0 (R2 vs R3, second section) (Table 4).

Figure 4 reveals that, excluding CG scores on the reading of the word list (r = 0.79), the connection between the scores offered in all three conditions by the rater is very low for both groups on the post-test.

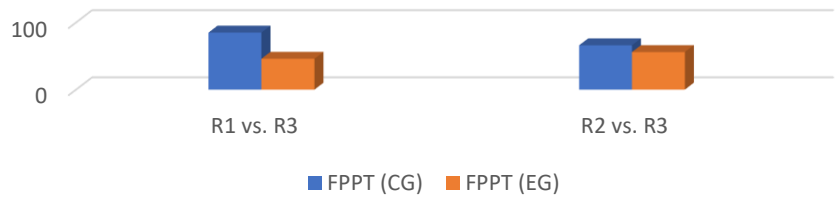

Fig.4. Results of the Connection Between Intra-Raters' Scores on the Posttest for the Experimental and Control Groups

FPPT (CG) = First part of the post-test conducted to the control group
FPPT (EG) = First part of the post-test administered to the experimental group
SPPT (CG) = Second part of the post-test administered to the control group
SPPT (EG) = Second part of the post-test administered to the experimental group

The Statistical Analysis of the Tests

Due to lack of empirical evidence supporting directionality, null hypotheses were used. The t statistic tested the hypotheses with an alpha decision level of < .05, nondirectional. Based on Brown's (1988) principle of dependency, significance levels between dependent- and independent-samples means were calculated using the t-test formula.

$$\frac{X1 - X2}{\frac{S2}{N1} + \frac{S2}{N2}}$$

X1 = Mean for the control group
X2 = Mean for the experimental group
S1 = Standard deviation for the control group
S2 = Standard deviation for the experimental group
N1 = Number of learners in the control group
N2 = Number of learners in the experimental group
df = Degrees of freedom
tobs = The observed statistic
tcrit = The critical value for the observed statistic.

1. The Pre-Test

In addition to establishing learners' initial level based on their familiarity with target language (TL) word pronunciation used in the experiment, pre-test scores were compared with post-test scores to identify any potential score improvement within the same sample (Table 3).

Pre-test results per condition show that the difference between group means occurred by chance alone (tobs < tcrit), indicating both groups were at the same level initially regarding English word pronunciation used in the experiment. However, R2 and R3's evaluation of the pre-test's second section concluded that EG members showed advantages over CG members in target language pronunciation at both segmental and suprasegmental levels (tobs > tcrit in both evaluations). Despite

consistency between sample means and t-test results, R2 and R3's assessment of this section is inconsistent with the first section.

Table 3. Evaluation of the Pre-test Administered to CG and EG Learners: Reading of the List of Words and Phrases

R1				/ R3			
CG member	**CG Mean score**	**EG member**	**EG Mean score**	**CG member**	**CG Mean score**	**EG member**	**EG Mean score**
11	2.7	2	17	12	73	2	69
13	16.4	4	23.2	13	54	4	35
15	43.5	6	35.4	15	43	6	26
17	38.1	14	16.5	17	75	14	43
18	23.4	20	26.8	18	74	20	52
19	20.6	25	25.2	19	49	25	65
22	27.7	33	23.6	22	63	33	52
24	43.6	40	28.8	24	60	40	38
26	12.7	42	17.3	26	54	42	59
27	32.4	44	33.9	27	52	44	46
28	19.4	46	31.8	28	36	46	41
30	17.2	47	32.7	30	49	47	52

Table 4. Evaluation of the Pre-test Administered to CG and EG Learners: Reading of TX

R2				**/R3**			
CG member	**CG Mean score**	**EG member**	**EG Mean score**	**CG member**	**CG Mean score**	**EG member**	**EG Mean score**
12	6.8	2	33	12	6.5	2	12.3
13	11.4	4	24	13	11.8	4	16
15		13	16.4	15	14	14	17.3
17	15.5	20	15.9	17	14	20	18.3
18	15	25	12.3	18	13	25	14
19	16.3	33	31	19	15	33	23
22	18.4	40	26.2	22	13	40	18
24	14.4	42	15.7	24	12.4	42	29
26	20.3	44	26.8	26	12.3	44	35
28	10.1	46	13.5	28	17	46	37.4
30	12.4	47	15.8	30	18.2	47	31.3

R2	R3
X1 =12.96 X2 =22.50 S1 = 3.78 S2 = 4.82 N1 = 8 N2 = 8 df = 58 tobs = 3.241 tcrit = 2.077 (p < .05)	X1 =13.21 X2 =24.53 S1 = 2.71 S2 = 8.72 N1 = 8 N2 = 8 df = 58 tobs = 3.013 tcrit = 2.977 (p < .05)

2. The post-test

Independent-samples t-tests were used to test whether differences between control and experimental group post-test means were due to chance (Ho) or treatment effects (H1). Results indicate Ho must be accepted since tobs < tcrit in both test sections (Table 5).

Table 5.

Assessment of CG and EG Post-tests: Reading of the List of Words and Phrases

R1				**/ R3**			
CG learners	**CG Mean score**	**EG learners**	**EG Mean score**	**CG learners**	**CG Mean score**	**EG learners**	**EG Mean score**
12	6	2	21	12	78	2	73
13	25.6	5	32.5	13	57	5	39
15	54.6	6	37.2	15	45	6	28
17	43.5	14	19.3	17	78	14	49
18	45.3	20	32.1	18	79	20	63
19	45.6	25	28.3	19	53	25	75
22	27.7	33	32.9	22	65	33	66.4
24	66.8	40	43.1	24	62	40	45.2
26	34.7	42	23.5	26	59	42	63
27	56.3	44	45.2	27	56	44	52.4
28	34.2	46	39.4	28	38	46	48
30	29.3	47	44.8	30	52	47	59

R1 X1 =33.33 X2 =34.81 S1 = 19.42 S2 = 5.72 N1 = 8 N2 = 8 df = 58 tobs = 0.212 tcrit = 2.977 (p < .05)	**R3** X1 = 59.63 X2 = 55.13 S1 = 14.77 S2 = 8.31 N1 = 8 N2 = 8 df = 58 tobs = 0.75 tcrit = 2.977 (p < .05)

Table 6. Assessment of the Post-test Administered to CG and EG Members: Reading of TX

R2				**/R3**			
CG learners	**CG Mean score**	**EG learners**	**EG Mean score**	**CG learners**	**CG Mean score**	**EG learners**	**EG Mean score**
12	43.2	2	45.2	12	15.3	2	34.2
13	35.4	5	34.9	13	32.1	5	44.6
15	43.2	14	35	15	28.2	14	33.6
17	56.8	20	56	17	34.1	20	54.9
18	46.2	25	34.5	18	36	25	35

19	37	33	54	19	32	33	43
22	56	40	38	22	23.4	40	52.3
24	47.3	42	43.9	24	37.2	42	38.6
26	54.2	44	38.4	26	12.3	44	65.2
28	34	46	38.3	28	46.7	46	43.1
30	39.3	47	47.5	30	48.3	47	64.3

R2	**R3**
X1 =13.75 X2 =22.50 S1 = 3.78 S2 = 4.82 N1 = 8 N2 = 8 df = 58 tobs = 4.032 tcrit = 2.977 ($p < .05$)	X1 =13.81 X2 =24.19 S1 = 2.71 S2 = 8.72 N1 = 8 N2 = 8 df = 58 tobs = 3.214 tcrit = 2.878 ($p < .05$)

Because the critical *t* (t_c = 2.977) is less than the observed *t* (t_o = 4.032) with df (57); hence, the difference between the two groups is significant at the level ($p< 0.05$). That is, the treatment of instruction of pronunciation via implicit learning was efficient in improving learners' accuracy of pronunciation. Therefore, it shows that the learners' accuracy of pronunciation in the experimental group developed significantly. This result gives some evidence to reject the null hypotheses, since the difference between the two mean scores reflects the experimental improvement which is due to instruction of pronunciation through implicit learning and phonemic symbols. Nevertheless, it is necessary to investigate whether there is a significant difference between the two groups.

3. Within-Groups Comparison of The Sample Mean Scores

To estimate the between-groups mean square (MSb) and within-groups mean square (MSw), we divided the between-groups and within-groups sums of squares by

their respective degrees of freedom. For comparing within-groups learner scores, the dependence of groups was crucial (Tables 7-8). The t-test objective was to determine whether (H1) or not (Ho) there was significant score improvement after treatment for each group.

In word and expression reading, Ho should be accepted for both groups because tobs < tcrit (CG: 0.783< 2.977; EG: 1.369 < 2.977). However, the observed statistic was much greater than the critical value for the control group in TX reading: tobs > tcrit (CG: 3.214> 2.878; EG: 3.15 < 3.707). Although H1 must be consistently rejected for the experimental group, it had to be accepted in the within-group means differentiation for the control group's second test section.

Table 7.
Comparison of Within-Groups Means: Pre- and Post-tests (Reading of the List of Words and Phrases)

CG1				**/ EG1**			
S	**Ta MS**	**S**	**TbMS**	**S**	**TaMS**	**S**	**TbMS**
11	23.4	17	54.4	2	25	43	48.5
13	25.4	23	43.6	6	34.5	45	43.8
14	32.5	29	54.3	5	35.1	46	54.3
17	34.2	32	28.4	22	18	47	63.4
19	28.7	35	33.9	27	42.7	49	54.7
21	34.8	37	43.1	34	53.2	50	62.6
X1 = 41.4 X2 = 43.2 S1 = 17.17 S2 = 10.62 N1 = 4 N2 = 4 df = 28 tobs = 0.1784	X1 = 36.23 X2 = 44.6 S1 = 9.91 S2 = 3.45 N1 = 4 N2 = 4 df = 28 tobs = 1.6 tcrit = 3.707(p < .05)						

tcrit = 3.707 (p < .05)	

Table 8.
Comparison of Within-Groups Means: Pre- and Post-tests (Reading of TX)

CG2				**/ EG2**			
S	**Ta MS**	**S**	**TbMS**	**S**	**TaMS**	**S**	**TbMS**
12	6	18	42.3	2	22.3	43	36.3
13	25.6	23	51.3	6	21.5	45	50
14	16.5	29	43	5	30.3	46	54.3
17	16.5	32	39.5	22	18	47	63.4
19	28.7	35	33.9	27	28	49	50
21	35.7	37	47.3	34	53.2	50	64.3
X1 = 13.20 X2 = 44.0 S1 = 4.22 L2 = 5.08 N1 = 3 N2 = 3	X1 = 25.53 X2 = 39.0 S1 = 4.30 L2 = 7.40 N1 = 3 N2 = 3						
df = 28 tobs = 9.34 tcrit = 3.707 (p < .05)				df = 28 tobs = 3.15 tcrit = 3.707(p < .05)			

L= Learner
TaMS = Pre-test mean score
TbMS = Post-test mean score
1 = Means of scores given by R1 and R3
2 = Means of scores given by R2 and R3

The outcome of this study show that treatment group made gains from the pretest to posttest which is an indicator of positive influence of implicit learning and phonemic symbols on the instruction of pronunciation of EFL learners.

Discussion

This study was an endeavor to make the learners' pronunciation more native-like, and was matched for intermediate learners. In EFL contexts, where the learners have little chance for exposure to target language, the burden falls on the instructors to supply a suitable model of target language. The findings of the current study together with the research questions are discussed as follows: Based on the results of study, involving implicit learning and phonemic symbols for subjects in the instruction of pronunciation can have significant effects on EFL learners' accuracy and intelligibility of pronunciation and exposure to fluent speakers on recordings and implicit acquisition of pronunciation features would significantly outperform those receiving awareness of phonemic symbols (segmental phonology) on the instruction of pronunciation.

The first research question was considered the issue of whether any statistically significant difference between EFL learners' accuracy and intelligibility of pronunciation by implicit learning and phonemic symbols. More specifically, this question examined whether being exposed to implicit learning and phonemic symbols, the learners show different performance in regards to their general achievements through reading aloud test.

Despite scoring differences between R1 and R3 on the pretest's first section, both raters found no significant difference between control and experimental groups (tobs < tcrit), indicating equivalent initial pronunciation levels. However, R2 and R3's evaluation of the second section showed experimental group advantages in segmental pronunciation (tobs > tcrit), creating inconsistency between the two test sections despite consistent sample means and t-test results.

In the pretest text reading section, the experimental group significantly outperformed the control group according to both R2 ($\bar{X}_1 = 12.96$; $\bar{X}_2 = 22.50$, tobs = 3.013 > tcrit = 2.977, $p < .05$) and R3 ($\bar{X}_1 = 13.21$; $\bar{X}_2 = 24.53$, tobs = 3.214 > tcrit = 2.977, $p < .05$). However, large variance in inter-rater correlation coefficients suggests caution in interpreting results, particularly given the dramatic drop from high

correlation for the control group (r = 0.67) to zero correlation for the experimental group (r = 0.0) in this section.

In sum, an independent samples t-test was run between the gain scores achieved by subtracting the pretest score from the post test scores of the two groups in the reading aloud test. The outcomes showed that there was a significant difference between the means of the two groups. Since the findings drawn from this independent t-test can merely give us a narrow view of the findings (only comparison of the gain scores), there need to be a more comprehensive view of the performance of the two groups. Looking at the results from a broader angle can be captured by conducting paired-sample t-tests, which can provide us with a comparison of pre- to post-scores in each group rather than the gain scores. The obtained p value was 0.000 which was smaller than the significance level (t=5.940, df=58, p< 0.05). This suggests that learners' accuracy and intelligibility of pronunciation increased by implicit learning and phonemic symbols and the null hypothesis is rejected.

The second research question asked whether EFL learners receiving exposure to fluent speakers on recordings and implicit acquisition of pronunciation features would significantly outperform than those receiving awareness of phonemic symbols (segmental phonology) on the instruction of pronunciation. The test was administered to both groups during the pre- and post-test sessions.

The difference between experimental and control group means in the post-test's second section (tobs < tcrit at p < .05) is not significant, as constructed by the t statistic, which appears combined with unreliable scores across researcher rating conditions. Correlation coefficients from this test section are very low (r = 0.60 for CG; r = 0.50 for EG) (Figure 4). This is further confirmed by the variety between R2 and R3's score sets. R2 produced lower CG mean scores and higher EG scores (X1 = 33.33; X2 = 34.81), while R3 produced opposite results (X1 = 59.63; X2 = 55.13) (Table 4.5). Additionally, inconsistent rater judgment across conditions is evident in word and expression list evaluation in both pre-test (r = 0.79 for CG; r = 0.61 for EG) and post-test (r = 0.0 for CG; r = 0.47 for EG).

By considering such difference and differences in the conditions of rating by the rater/ researcher in the evaluations, one can assume, for example, if the acceptance of the null hypothesis (tobs < tcrit at p < .05) in both sections of the post-test done to CG and EG was since the fact that both treatments had the same impact on the candidates, or to intra-rater low correlation. This, in turn, displays at least two other questions: (1) was intra-rater low correlation a consequence of the raters lack of expertise in this kind of assessment, or (2) was the quality of the recordings a major variable.

In sum, As Table 6 shows, there is a remarkable discrepancy between the mean gain scores of the two groups; therefore having a short image at this table reveals that the improvement of the two groups are not comparable because the mean gain score

for the non-exposure to fluent learners was significantly higher than the mean gain score for the group experiencing exposure to fluent leaners on recordings and implicit acquisition of pronunciation features. Since the results drawn from this independent t-test can merely give us a narrow view of the findings (only comparison of the gain scores), there need to be a more comprehensive view of the performance of the two groups.

The statistical significance of observed mean gain scores for learners experiencing exposure to fluent speakers on recordings and implicit pronunciation acquisition (pre- to post-test changes) can be considered significant and indicative of this method's effectiveness for developing learner fluency. To confirm this progress, a within-groups comparison of sample mean scores was conducted. Based on Table 8 findings, there was a remarkable difference between mean scores given by R1 and R3 versus R2 and R3 ($P < .05$), implying that exposing experimental group subjects to fluent speakers on recordings and implicit pronunciation acquisition significantly affects their fluency. Therefore, learners receiving exposure to fluent speakers on recordings and implicit pronunciation acquisition would significantly outperform those receiving phonemic symbol awareness (segmental phonology) instruction, and the null hypothesis is rejected.

CONCLUSION AND IMPLICATIONS

Even though Morley (1991) persisted that it is essential to instruct English pronunciation in the ESL or EFL classroom, nonetheless, this significant field is not paid much attention at several universities and institution. Contemporary pedagogy in this field considers issues of greater problems as a consequence of the development in knowledge about phonology that is currently available. Pronunciation is not merely about producing the right sounds or focusing on the right syllables, it is also about helping learners understand what they hear. However, the instruction of pronunciation is more than the four basic skills in English.

Even though some English teachers in the educational system still believe that the instruction of pronunciation to EFL students is ineffective, and that correct pronunciation of English is too complicated to be learned under current conditions, the present research quite clearly displayed that Persian learners were certainly capable of mastering pronunciation. The only thing important to achieve this objective is to work definitely and explicitly based on the scientific findings of the relevant research. Therefore, Phonology and pronunciation instruction are coming to take a crucial position in the instruction and learning of other languages as oral skills are growingly viewed as a high priority.

The study revealed that phonological awareness, i.e., one of the most significant matters in EFL instruction, by teaching vowel acoustic features of L2 have plenty of possibilities, which can be of great application in EFL classroom contexts. In

terms of the results of this study, some instructional implications can be offered which can be pedagogically speaking suggested that has manifold implications mostly for EFL teaching.

The present study tried to deal with this issue of applicability and proved that implicit instruction and phonemic symbols (segmental phonology) may to a large extent lead to the learning of English pronunciation. In spite of some limitations, this study has some implications for the students, teachers, educational policy-makers, and textbook designers. Certainly, with more study we can reach better results.

Based on this study, the main **limitations** include: (1) a limited sample of 40 EFL students from a single university (Bunga Bangsa University, Cirebon) which reduces the generalizability of findings, (2) focus solely on student perspectives without involving instructors or policymakers, (3) absence of longitudinal analysis to track the long-term impact of TOEFL preparation on actual academic performance, and (4) limitations in exploring perception differences based on students' academic backgrounds or initial English proficiency levels. For future research, it is recommended to: (1) expand the sample to various universities and geographical contexts to enhance external validity, (2) employ mixed-methods design involving multiple stakeholders (students, instructors, and administrators), (3) conduct longitudinal studies to evaluate correlations between TOEFL scores, perceived preparation value, and long-term academic performance, (4) analyze perception differences based on demographic and academic variables, and (5) explore the implementation of Scriven's evaluation model in other English language test preparation contexts such as IELTS or Cambridge English to enrich theoretical understanding of language test preparation value.

REFERENCES

Abercrombie, D. (1991). Teaching pronunciation. In A. Brown (Ed.), *Teaching English pronunciation: A book of readings,* New York: Routledge.

Acton, W. (1984). Changing fossilized pronunciation. *TESOL Quarterly, 18*(1), 71-85.

Acton, W. (1992). Technique entropy in language teaching. *Bulletin of the Faculty of Nagoya University of Commerce and Business Administration, 37*(1), 45-55.

Acton, W. (1998). Directed motion in second language pronunciation instruction. *Journal of Communication and International Studies, 5*(1), 43-52.

Anderson-Hsieh, J., R. Johnson and K. Koehler. 1992. "The relationship between native speaker judgments of nonnative pronunciation and deviance in segmentals, prosody, and syllable structure". *Language Learning 42* (4), 529-555.

Andrews, S. (2006). The evolution of teachers' language awareness. *Language Awareness, 15*(1),1-19.

Andrews, S. (2007). *Teacher language awareness*. Cambridge: Cambridge University Press.

Avery, P. & Ehrlich, S. (1992). *Teaching American English pronunciation.* Oxford; Oxford University Press.

Berry, C. C., & Dienes, Z. (1993). *Implicit learning: Theoretical and empirical issues*. East Sussex, UK: Erlbaum.

Brazil, D. (1994). *Pronunciation For Advanced Learners of English*. Cambridge: Cambridge University Press.

Brown, A. (2008). Pronunciation and good language learners. In C. Griffiths (Ed.), *Lessons from good language learners*. Cambridge: Cambridge University Press.

Brown, H. D. (2000). *Principles of language learning and teaching* (4th ed.). White Plains, NY: Longman.

Brown, H. D. (2007). *Teaching by principles: An interactive approach to language pedagogy* (3rd ed.). White Plains, NY: Pearson Education.

Celce-Murcia, M., Brinton, D. M., & Goodwin, J. M. (2010). *Teaching pronunciation* 2nd ed.). Cambridge: Cambridge University Press.

Celce-Murcia, M.; Brinton, D. M.; & Goodwin, J. M. (1996). *Teaching pronunciation: A reference for teachers of English to speakers of other languages.* Cambridge: Cambridge University Press.

Cheng, F. (1998). The Teaching of Pronunciation to Chinese Students of Englis*h. English Teaching Forum*, Jan-Mar, 1998, 37-39.

Cruttenden, A. (2001). *Gimson's Pronunciation Of English.* 6th Edition. London: Arnold.

Dalton, D. (2002). *Some Techniques for Teaching Pronunciation*. Retrieved May 1, 2002, from http://iteslj.org/Techniques/Dalton_Pronunciation.html

Dalton, C. and B. Seidlhofer.**(**1994b). 'Is pronunciation teaching desirable? Is it feasible?' in T. Sebbage and S. Sebbage (eds.). *Proceedings of the 4th International NELLE Conference.* Hamburg: NELLE.

DeKeyser, R. (2003). Implicit and explicit learning. In Doughty & Long (eds.), *The handbook of second language acquisition*. Oxford: Blackwell Publishing.

Derwing, T. M., & Munro, M. J. (2005). Second language accent and pronunciation teaching: a research-based approach. *Teachers of English to Speakers of Other Languages*. *20,* 379-398.

Dziubalska-Kołaczyk, K., and J. Przedlacka. Eds. 2005. *English Pronunciation Models: A Changing Scene.* Bern: Peter Lang.

Ellis, N. (1994). Implicit and explicit language learning- an overview. In N. Ellis (Ed.), *Implicit and explicit learning of languages* (pp. 1-31). London: Academic Press.

Ellis, N. C., & Larsen-Freeman, D. (2009b). Language as a Complex Adaptive System (Special Issue). *Language Learning, 59: Supplement 1.*

Firth, S. (1992). Pronunciation Syllabus Design: A Question of Focus. In P. Avery & S. Ehrlich (Eds.), *Teaching American English pronunciation*. Oxford: Oxford UP.

Flege, J. (2003). Assessing constraints on second language segmental production and perception in A. Meyer and N. Schiller (eds.). Phonetics and Phonology in

Language Comprehension and Production, Differences and Similarities. Berlin: Mouton de Gruyter.

Flege, J., D. Birdsong, E. Bialystok, M.Mack, H. Sung,and K. Tsukada. (2006). 'Degree of foreign accent in English sentences produced by Korean children and adults'. Journal of Phonetics 34/2:153–75.

Frensch, P. A. & Runger, D. (2003). Implicit learning. Current Directions in Psychological Science. Oxford: Blackwell Publishing.

Kumar, M., & and Rahimi, J. (2025) Decoding Academic Integrity Policies: A Corpus Linguistics Investigation of AI and Other Technological Threats. Higher Education Policy.

Minhong, Y. & Ailun, L. (2006). The effect of implicit learning on the learning of a second language pronunciation. *Psychological Science, 3*, 26.

Mohseni, M. S. (2011). *The effect of the explicit vs. implicit teaching of English consonant clusters on the Persian high-school students' learning and retention.* (MA dissertation). Payam-e-Noor University, Iran.

Munro, M. J. & Derwing, T. M. (2011). Research timeline: Accent and intelligibility in pronunciation research. *Language Teaching, 43*(3), 316-327.

Papachristou, V. (2011). Explicit vs. implicit pronunciation teaching to Greek children: The case of the acquisition of English vowels. *Selected papers from the 19th ISTAL,* 371-381.

Saito, K. (2013). Reexamining effects of form-focused instruction on L2 pronunciation *Studies in Second Language Acquisition, 35,* 1-29.

Zhao, Y., & Lee, H. (2024). I feel AI is neither too good nor too bad: Unveiling Chinese EFL teachers' perceived emotions in generative AI-Mediated L2 classes. *Computers in Human Behavior, 161*, 10842.