

## EFFICACY OF PHONOLOGICAL INSTRUCTIONS IN IMPROVING ESL STUDENTS PRONUNCIATION

**Razia Ijaz Hafiza**

Email: [raaziiajaz907@gmail.com](mailto:raaziiajaz907@gmail.com)

Visiting lecturer department of English, University of Punjab, Lahore, Punjab, Pakistan

**Tanzila Abbas**

Email: [abbastanzila123@gmail.com](mailto:abbastanzila123@gmail.com)

Lecturer department of English, Lahore Leads University, Lahore, Punjab, Pakistan

**Bushra Rasheed**

Email: [bushrarasheed23@gmail.com](mailto:bushrarasheed23@gmail.com)

MPhil (English Linguistics), department of English, Institute of Humanities and Arts, KFUEIT, Rahim Yar Khan, Punjab, Pakistan.

### Abstract

*Generally assumed that, the students who are taught phonological instructions perform better in pronunciation than the students who are not taught phonological instructions. The present research aim is to analyze the effect of phonological instructions on the improvement of ESL students' pronunciation. The selected sample was the university level ESL students. The sample was divided into two equal groups named as control group and experimental group through purposive sampling technique. Experimental group was taught through phonological instructions by multiple video recordings and classroom lessons while control group was taught through the traditional instructions. A pronunciation test was taken as pretest and posttest and collected data was analyzed through SPSS with the application of independent sample t-test and paired sample t-test. The obtained results showed that there was significant improvement in the mean scores between the control and experimental group. The performance of the students of experimental group was improved. This research is useful in the ESL teaching-learning process by using the Phonological instructions to solve the pronunciation problems.*

**Keywords:** *standard English, ESL learners Phonological Instructions, Pronunciation, experimental research.*

### Introduction

Language is key of communication, without language human beings unable to convey the actual thoughts to other human beings. And for good communication it is essential to pronounce the words in correct manner (Jalbani 2023; Cheema et al, 2023). The status of English language is very high in the Pakistan being the official language and the language of technology and advance level education (Rao et al., 2023; Rasheed et al., 2021 & 2023). The term pronunciation refers to the production and utterance of any sound, word, phrase or sentence; it means pronunciation is related to speaking skill. Pronunciation is defined as the way through which a specific sound or word can be spoken. As mentioned by Broughton et al. (2002) and cited in the research work of Muklas (2017) that pronunciation is the part and parcel of oral communication and it has two stages, first is the receptive stage and second is productive stage. Receptive is related to the listening ability and productive is related to the production and speaking According to Young (2005), studying a language which is new for the learners' pronunciation, must have the first place in learning process and more emphasis should be on the correct and intelligible pronunciation, stress, rhythm and intonation patterns. According to Young (2005) many language learners do not put themselves into a strong practice and careful efforts to target

language pronunciation. Researchers in this research study selected the problems which ESL learners face in the pronunciation at post graduate level English. Pronunciation has more aspects which are important while learning pronunciation. Here researcher selected only two aspects of the pronunciation which are stress and intonation patterns. There are further divisions in the field of stress and intonation, so researcher will include the functions of stress and intonation patterns as word stress, sentence stress and rising /falling intonation patterns. This research work is experimental in nature, as experimental research includes variables and cause and effect relationship among variables. And the present research work based on dependent and independent variables and cause and effect relationship among dependent and independent variables.

### **Research Objectives**

- The purpose of this research work is basically to analyze the impact of phonological instructions on the ESL learners' pronunciation.
- This research work is an experimental research work and through this experimental work researchers will provide the evidence from the collected data about the effect of phonological instructions.
- This study revolves round this very stated objective either the phonological instructions have positive influence on the ESL learners' pronunciation or not.

### **Research Questions**

- Phonological instructions or traditional style of learning which make the ESL students' perform better in pronunciation?

### **Problem Statement**

“Problem statement is a clarification from the part of researcher that why he is conducting this research? and what is his purpose? Moreover, it describes the problem need to be investigate and address the problem” (Rao et al, 2024, p.1187).

- In Pakistan English is used as second language, so majority of the people face problems and difficulties while pronouncing English words correctly.
- ESL students face various complications linked to pronunciation in ESL classrooms.
- The researchers attempt to find the proper solutions of these difficulties of ESL students' pronunciation at university level.
- What approaches can be employed to solve these complications.

### **Limitation of the Research Work**

Like many other research works this one has also contributed in the field of ESL learners' pronunciation through phonological instructions. But nothing is perfect in this world, so is the case here and this research work also has few limitations. The first limitation in this research work is the limitation of time. The allocated time for such type of research was very short; had it been more time allocated, there could have been better result achieved. If these techniques were given extended period of time the instructions could have affected the other skills of language also. The present research was conducted only on university level; had this research been conducted on the ESL students of a college level.

### **Research Significance**

This research work is significant for both the ESL tutors and ESL students at the university level because this research is not only highlighting the pronunciation

complications but after directing the experiments it will offer the solutions of these complications. The results of the present research will be valuable for the educators' instructors and syllabus creators and they can comprise the phonological instructions in the educational trainings and syllabus to get better consequences in pronunciation viewpoint. The present research is valuable for the upcoming researchers who want to do research in the field of phonology.

### **Literature Review**

“Literature reviews summarizes and assesses the text of writing of the definite theme and provides a basis to think about the possible importance of innovative study” (Sadaf et al, 2024, p.658). “Review of the literature summarize and evaluate the text of writing of the definite theme, and provide frame work to think about the possible consequence of innovative study” (Ahmad et al, 2023, p.3944). “A review of literature may only be a clear overview of the sources, in an organizational pattern, and its function is to estimate and summarize the previous writings linked to current topic” (Ahmad et al., 2024). Students who have the better skill and knowledge about English language are reported to get better opportunities in their life due to the glowing status of English language in Pakistani context (Council, 2013). With this prestigious condition of English language the importance of comprehensible and correct pronunciation is twofold as, first for better career opportunities and second for social status. Due to the lack of phonological awareness, majority of the ESL learners who learn English through Pakistani educational system, speak English with monotone and without proper stress and intonation patterns. In English language stress and intonation play a crucial role not only for correct pronunciation but also for semantic and grammatical functions.

In ESL countries even at graduate and postgraduate level students have very poor pronunciation and on contrary ESL learners who acquire the second language sounds awareness at early age can pronounce the words with correct stress and intonation patterns. So, initial level learning about the phonology of the target language provides the way for the learners to have a solid base in the field of pronunciation, and this makes a learner more efficient in the selected field.

According to Nunan (2001) our speaking style represents our identities and social background and status, and correct pronunciation makes the people to comprehend the speakers' ideas completely and clearly. The importance of good pronunciation is related to the whole academic and social prestige in the case of English language because English is considered as the language of high prestige in Pakistani context and enjoying the significant state of being an international lingua franca. Pronunciation includes all prosodic aspects of language these are the accentual features, rhythmical features and stress and intonation patterns. It is true that ESL/EFL students' syllabus have not any drills and activities except this the teachers guides and curriculum do not provide helpful material for the good pronunciation and accurate stress and intonation patterns.

That's the reason, pronunciation of Pakistani ESL learners is very poor and they speak almost in monotone without correct stress and intonation patterns or with wrong stress and intonation patterns which can change meanings and feel of the sentence in English language. According to Celik (2001) “The need to consider intonation, not as a luxury but a necessity for an efficient interchange in English.” A person who speaks English with proper pronunciation and with correct stress and intonation patterns enables himself not only to speak well but also understand the

other speakers well. Yangklang (2013) says that stress and intonation patterns in ESL learning process not only provide the good skill of speaking but also enhance the listening skill. The listening skills enables ESL/EFL learners not only to speak but to comprehend also which is the key point of learning a language and effective communication. This is why south Asian ESL learners face numerous pronunciations, production, and perception related problems (Mannan, 2016). In the case of Pakistani ESL learners, ESL learners learn the English language and speaking skill from the non-native English teachers and these ESL teachers are also have not clear idea about exact prosodic features productions. There are few teachers at the higher level who have the exact knowledge about the English prosodic features but unfortunately they are few and they cannot give time to each ESL learner.

A renowned linguist Roach (2010) also pointed that students who have contact with native English speakers are good in their English pronunciation and especially with intonations patterns. Previous studies are conducted on the connected speech and on the stress patters on long vowels and contrastive stress. This is the gap which is filled by the present study that no research includes the consonant sounds for stress patterns problems.

In the Pakistani context ESL learners put wrong stress and intonation patterns not only with the long vowel sounds but with the short vowel sounds also. And the same issue is observed with the production of few consonants sounds such as /ch/ sound and with the production of (h) sound and with few other consonants sounds also. ESL learners pronounce vowels sounds with high pitch and strong stress where they want to give the prominence so, they replace the short vowel sound into long vowel sound as in the example of word “apple” ESL learners adds extra vowel sound before the dark /l/. And another case in this context is the pronunciation of /p/, /t/, /k/ sounds especially in the polysyllabic words most of the Pakistani ESL learners pronounce these sounds with full emphasis and aspiration even at the middle and at the end position.

This very study is replicated by Puga et al. (2018) with forty participants who belong to Hong Kong and the results proved that to some extent mother tongue or native language influenced the few intonation patterns of ESL learners because ESL learners who have the same intonation and stress patterns of their mother tongue and target language face little problems in learning the target language. This gives the logic to the present study because it is based on the phonological instructions with drill, practice and rules learning for stress and intonation patterns of ESL students in district Sialkot.

One related study is conducted on Pakistani English speakers by Afsar and Kamran (2011) but this study includes the difference of pronunciation and sound production, not stress and intonation patterns. They found that Pakistani English speakers even at the advanced level break the structure of words which start with the sounds as /“sp, st, sk”/ and ESL speakers use the additional schwa sound between /“sp, sk, and st”/ and this additional vowel sound changes the sound production patterns and causes the perception problems. Due to the additional vowel sound speakers use the extra force while producing sound and this force causes the wrong stress and intonation patterns. This research study includes the /h/ sound which is voiceless consonant in British English pronunciation but in Pakistan usually it is pronounced as voiced consonant, in rare cases it is pronounced correctly. This type of

issues, noted by the above mentioned researchers, provide the evidence for further consolidating the stress and intonation problems in Pakistani ESL learners setting.

The present research will now fill the gap and the researcher is going to provide the solution of this difference with the knowledge and practice of phonology. Another related Pakistani researcher study is done by Nadeem (2016) on the stress patterns. It is well structured research work which is done on the stress patterns and the result of this study is based on the stress patterns of Pakistani Standard English variety. The above mentioned research is not related to phonological instructions and collected data is based on PTV news reports. Therefore, it is not in any way related to ESL learners.

They emphasis on this view that prosodic and suprasegmental features are really a neglected field in the ESL teaching and learning process Field, 2005). On another point they all have the same point about prosodic features that they are learnable through practice, rule leanings and through the listening of native English speakers' communication. In this perspective native audio CDs are helpful and data for practice can be taken from BBC and the English entertainment, political and animated TV Channels. Another evidence is taken from the work of Roach (2010) on phonetic and phonology. According to Roach, phonological awareness and phonological instructions are the key and crucial elements to acquire the stress and intonation patterns. To present research fill the gaps left by previous researchers by using following research methodology.

### **Research Methodology**

“Research methodology is the part of the research study in which researchers give an account of the research methods, which they have used to conduct their research” (Ahmad et al 2023, p.402). The present research work is designed to analyze the impact of phonological instruction on ESL students' pronunciation at university level. “A design is a general strategy to conduct a research study” (Rasheed et al., 2024, p.692). This research is based on quantitative research paradigm. Quantitative research paradigm is one of three research basic research paradigms. It deals with the quantifiable numerical data with computational, mathematical or statistical techniques.

In this research work the population is the university level ESL students at Lahore district. For this experimental research sample size of 60 students was selected by using purposive sampling. These students were divided in two equal groups

In this research experiment there are two groups, one is control group and the second is experimental group. Both the groups were taught with different teaching techniques. Experimental group received the treatment based on the phonological instructions about stress and intonation patterns. These instructions were based on stress and intonation rules learning with practice of these rules in the classroom setting, while the control group was taught with the same traditional methods of teaching, based on mere definitions learning and few transcription rules learning. Experimental research method used in this research work, is based on the quantitative research design. Pretest and Posttest two group designs is considered true experimental design.

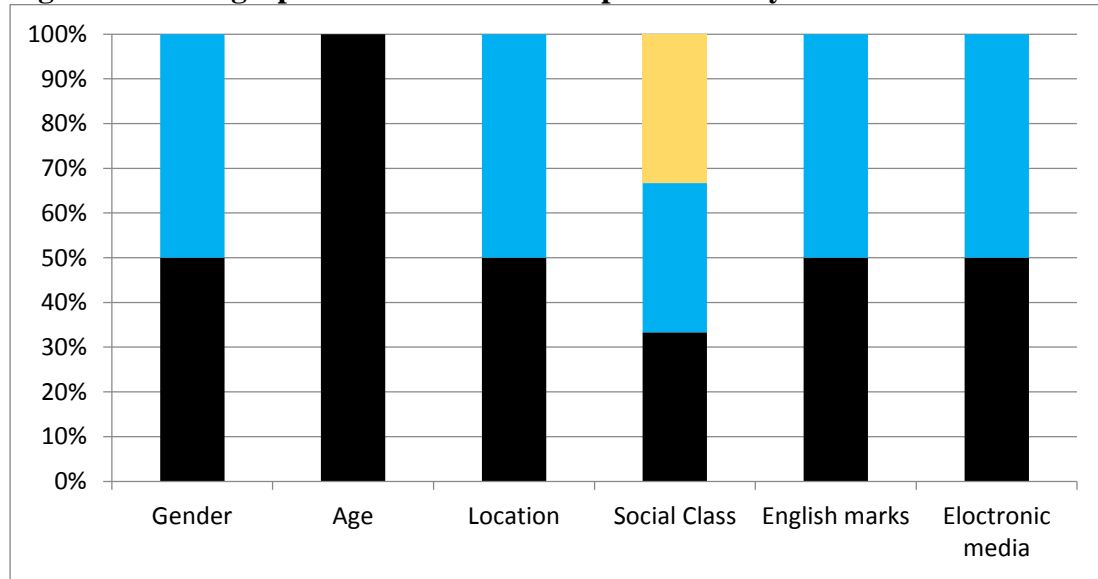
In this experimental research data was collected before the treatment through pretest from experimental and control group. Data was collected after treatment through posttest from control group and experimental group.

Data was analyzed by using the SPSS software, it is a Statistical Package of Social Sciences and commonly abbreviated as SPSS. The analyzed data was presented in tables and graphs in numerical form.

**Demographic Statistics**

The demographic statistics for the present study comprises, gender, age, location, social class, and marks in English, usage of electronic media.

**Figure: 1. Demographic information of the present study.**



The above figure is showing the demographic information of the thirty research participants. Their gender contains equally on 30 male and 30 female; their ages were between 16 to 20 years; their location 30 belongs to urban and 30 belongs to the rural areas. At the time of admission grade of 30 students was A, and rest of 30 students was B; similarly, the half frequency used electronic media while other half never used electronic media.

**Result and Findings**

**Table 1 pretest of control and experimental group for pronunciation**

Group	N	M	SD	SEM
Control Pre-test	30	182.2963	12.23430	2.35449
Experimental Pre-test	30	177.5357	10.40827	1.96698

Table 1 shows the control group and experimental group sample size, mean scores, standard deviation and standard error. It shows that total sample size (N) is 60 and control group contains 30(N) ESL learners and experimental group contains 30(N) ESL learners. Mean scores (M) of control group is 182.2963 and (M) of experimental group is 177.5357 and standard deviation of control group is (SD) 12.23430 and (SD) of experimental group is 10.40827. All these values show that both the groups are approximately identical statistically.

**Table 2 Independent sample t test of the pretest of control and experimental group pronunciation**

Levene's Test for Equality of Variances		t-test for equality of means						
F	Sig	t	df	Sig. 2	MD	SED	95%CI	

					tailed				
Equal variances assumed	.549	.462	1.556	53	.126	4.76058	3.05891	1.37481	10.89597
Equal variances not assumed			1.552	51.024	.127	4.76058	3.06800	1.39862	10.91978

Table 2 explains the Levine’s test of equality which explains the equality of variance. According to the Levine’s test it is assumed that the standard deviations should have the same values. In the case of this research there is slight difference in the SD values but the value is not significant in pretests of both the groups so, in this case both the groups are similar because both the groups show no significant. In the Levine’s test F value is = to .549 which is greater than the p 0.05 .in this test of equality the most important values are the t-value and the p-value. In the present research table 2 shows that the t-value of both the groups is equal which is 1.556 and 1.552 with the df which represent the degree of freedom which is in this case is 53 and it shows that the difference is not significant because both the values are higher than the p- <0.05. And p value which shows the significance is .126 and .127 which is greater than the p- < 0.05. Mean scores (M) of control group is 182.2963 and (M) of experimental group is 177.5357 and mean difference in table 2 is 4.7 with standard error 3.05 and confidence interval which is the last value is the 1.37 - 10.89 and this is not significant statistically.

**Table 3 Group statistics of the post-test of control and experimental group**

Group	N	M	SD	SEM
Control post-test	30	184.0000	11.92605	2.29517
Experimental post-test	30	379.6429	20.27992	3.83254

Table 3 describes the control group and experimental group posttests statistics which shows that control group N is 30 and experimental group N is 30. Mean scores of control group posttest is 184.000 and experimental group M= 379.642 which show the significant difference between the posttests scores of control and experimental group. And the standard deviation of control group is 11.296 with standard error = 2.295 while the standard deviation of experimental group posttest is 20.279 with standard error = 3.832. The difference of mean and standard deviation values of the both groups shows that there is significant difference between the posttest scores of control group and experimental group.

**Table 4 independent sample t-test of the post test of control and experimental group**

Levine’s Test for Equality of Variances			t-test for equality of means						
	F	Sig	t	df	Sig. 2 tailed	MD	SED	95% CI	
Equal	12.	.00	-	53	.000	-	4.5076	-	-

variances assumed	548	1	43.403			195.64286	4	204.68403	186.60168
Equal variances not assumed			-43.795	43.967	.000	195.64286	4.46724	-204.64617	-186.63954

Table 4 explains the independent sample t-test of the posttest of control and experimental group. It explains the t-test for equality of means and Levine’s test for equality of variance. Table 4 shows that F value which is 12.548 with significance level 0.01. it shows that there the result is significant because  $0.01 < 0.05$  which is the significance standard. In the same way t-value is 43.303 with 53vdegree of freedom which shows the significant difference p- value  $0.000 < 0.005$  the difference is significant. MD is the 195.6 with SD 4.50 and this explains the difference of the sample. Regarding to confidence interval  $CI = 204.6-186.6$  which shows the significant difference of control and experimental group means scores.

The findings which are mentioned above show that the results of t-test for equality of means and Levine’s test for equality of variances show the significant difference between the mean gain scores of control group posttest and experimental group posttest. The values of mean and standard deviations show that there is significant difference between two groups. The findings which are drawn from table 4 shows that the hypothesis is accepted which was based on the point that ESL learners who are taught phonological instructions perform better in pronunciation than the students who are not taught phonological instructions. Because the results of both the tests show the significant difference between the scores of control and experimental group posttests and it can be said that the difference was due to the intervention of phonological treatment and manipulation of dependent variable.

Aydin (2013) described the results of the research and provided evidence that clear phonological guidelines enhance the ESL pronunciation. In the same way the findings of the present research met with the findings of Roohani (2013) research who claimed that instructions about pronunciation features given through integrative approach improve the ESL/EFL suprasegmentals as stress, intonation and rhythm. He described that it is crucial to provide the practice in a communicative discourse rather than the mere phonemic level recognition.

**Discussion**

In the Pakistani educational system especially in the government sector it is a usual practice to neglect the ESL students’ pronunciations. ESL learners usually indulge in the tedious ways of learning which are not effective in the way that even after studying the English as a compulsory subject throughout the sixteen years of education, students are not able to pronounce a single sentence properly. Poor pronunciation is not only the problem of students who are poor in the academic achievements but poor pronunciation is equally the problem of brilliant and efficient students as well. Even at the university level the students are in the practice of learning the definition and the theoretical based learning about the second language acquisition theories. There is no practice involved in the whole teaching learning process. Even in the Pakistani educational policies it is recommended that theory and practice both are equally important for learning but there is no actual activity



available in the ESL learning classrooms. According to National curriculum (2000), theory with practice is effective and it should be given the equal importance. In this research work researchers suggested that the ESL learners should practice phonological instructions. The results of this research work showed the significant difference due to the intervention of independent variable which was the phonological instructions.

### **Conclusion**

The present research work was based on to analyze the impact of phonological instructions on the ESL students' pronunciation. Pronunciation is considered crucial for the communication. In Pakistani context English had the status of second language and students used to learn English throughout their whole academic career. In spite of that status, English pronunciation is a neglected field in Pakistani educational system and English learners process was just based on the grammar and vocabulary learning practice. The present research was an endeavor to solve the pronunciation related problems by giving the phonological awareness and by using the intuitive, imitative and integrated teaching techniques to provide the pleasant learning environment. Henceforth, it was proved that phonological awareness positively influenced the ESL students' pronunciation.

### **Recommendations**

- Researchers suggests that the future researchers should do research work in the field of phonology as there is little work done in the field of phonology in the Pakistani context.
- This research is based on post graduate ESL learners and researcher suggests the future researchers to do research on the different level ESL learners by focusing the different causal variables.
- This type of research can be done in the different fields of learning and in different faculties. Such research can also be done conveniently in the faculties of science and mathematics with different dependent and independent variables.
- Researcher suggests that the future researchers, by keeping in mind all the above limitations of this research, can conduct new research on the pronunciation related stress and intonation problems and can include different forms of sentences.
- It is suggested by the researcher to the future researchers in the ESL/EFL field they can conduct research to analyze the impact of phonology on the overall academic achievements and considering the variables as confidence etc.
- Future researchers can conduct research to check the influence of better pronunciation on the anxiety level on the ESL learners. It can be concluded that there is always a room at the top and in the field of phonology and pronunciation there are many other fields which are needed for further exploration.

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