

The Effect of Explicit Pronunciation Instruction on Undergraduate English as a Foreign Language Learners' Vowel Perception

MOHAMMAD REZA GHORBANI
University of Bojnord, Bojnord, Iran

MALIHE NEISSARI
Tabaran Institute of Higher Education, Mashhad, Iran

HAMID REZA KARGOZARI
Tabaran Institute of Higher Education, Mashhad, Iran

Abstract

Since English pronunciation errors by Persian speakers are often caused by the transfer of the Persian language sound system, the present study investigated the effect of explicit pronunciation instruction on undergraduate English as a Foreign Language (EFL) learners' vowel perception enhancement. The nonequivalent group, pretest-posttest design was employed to study two classes of English literature and English teaching students at Kosar University of Bojnord (KUB) as the experimental group (EG) and control group (CG), respectively. A 40-item minimal pair test was developed based on the 3rd edition of the book *Ship or Sheep: An Intermediate Pronunciation Course* written by Baker (2006). The reliability of the test was estimated 0.75 through KR-21 formula. After the pretest administration, both groups were exposed to the same activities; however, only the EG received the treatment regarding explicit pronunciation instruction. At the end of an eight-week training program, the pretest was used as the posttest. The results of the independent samples t-test from the posttest revealed that the EG had a better performance than the CG, suggesting that EFL learners' vowel perception can improve if they are explicitly made aware of their pronunciation errors.

Introduction

Education in Iran

Education is generally free of charge, although there are some private schools, institutes, and universities that are permitted to charge tuition fees. On the whole, the Iranian educational system consists of the following categories:

1. One year Kindergarten from the age of five (elective)
2. Six year primary school from the age of six (compulsory education)
3. Three year junior high school from the age of 11 (compulsory education)
4. Three year senior high school from the age of 15 to 18
5. University, which is under the supervision of the Ministry of Medical Health (MMH) and Ministry of Science, Research, and Technology (MSRT)

Although the Iranian government has increased and expanded higher education institutions since the Islamic Revolution in 1979, it has not yet been able to meet the needs of a large number of applicants who are eager to enter, free of charge, public universities and institutes. That is why admission to higher education institutions is done through a tough, nation-wide entrance examination in which only the most talented and studious students can manage.

The Ministry of Education (ME) is responsible for formulating education policy as well as for overseeing the operations of all public and private schools, the MSRT is responsible for non-medical universities, and the MMH is responsible for medical universities. Schools, some teacher training colleges and technical institutes are under the supervision of the ME, which employs the highest number of civil servants.

The Difference between EFL and ESL

EFL stands for English as a Foreign Language and ESL stands for English as a Second Language. The main differences between EFL and ESL are the students who are learning English and the location where they are learning it. EFL is taught in countries where the native language is not English. For example, an English teacher who teaches English in a non-English speaking country like Iran is teaching EFL. ESL, on the other hand, is used where English is taught to learners who are from a non-English speaking country, but studying English in an English speaking country. For example, an Australian English teacher who is teaching students from non-English speaking countries in Australia is teaching ESL. According to Prator (1991), the difference between EFL and ESL is that in an ESL context, English is taught as a partial or general medium of instruction for other subjects, while in an EFL context, instruction in other subjects is not usually in English.

EFL is a universally accepted term, whereas ESL is not as widely accepted since English might be the 3rd or even 4th language for non-English speaking people. This is why different terms are used to describe people learning English in native English speaking countries. English for Speakers of Other Languages (ESOL) and English as an Additional Language (EAL) are becoming increasingly popular around the world. As an umbrella term, Teaching English to Speakers of Other Languages (TESOL), may be the most recognized and used term within this area of study.

English Education in Iran

In Iran, English is taught as a foreign language and is practiced within a context-restricted environment in which the textbook and classroom teacher play the main role.

Previously, English education in Iran formally started from the second grade in junior high schools, but now it begins in the first grade. All schools at different levels follow curriculum standards, and The Ministry of Education compiles, develops, and publishes textbooks and teaching materials for nationwide public and private high schools (Eslami-Rasekh & Valizadeh, 2004, 2008).

The purpose of English education, as a compulsory subject, is communication. However, most teachers' lack of proficiency in English has made the use of the Persian language the main medium of instruction, which, in turn, has led to improvement in

students' translation abilities. That is, they can translate materials written in English into Persian, but they cannot use the English language to communicate effectively.

In Iran, the Ministry of Education is required to revise and improve curricular materials so that they are aligned with the latest scientific and technological findings every ten years, English materials included. The current English textbooks that are meant for use in Iran, were developed to put emphasis on communicative competence, but they are far from being called communicative textbooks. According to Hosseini (2007), many teachers use the grammar translation method, and the textbooks lack listening and speaking activities. Furthermore, the writing activities are confined to grammatical exercises, such as making passive sentences or putting scrambled words and phrases in order. Because grammar has been the focus, pronunciation has been ignored or treated as a less important skill in English language teaching in Iran.

Explicit pronunciation in English language teaching engages learners in activities that help them to focus their attention primarily on pronunciation. Explicit teaching takes place when there is no distraction of the mind on other parts of language teaching, such as grammar. However, implicit pronunciation teaching occurs when the mind is concentrated elsewhere. Since Persian learners of English have problems with particular areas of English pronunciation that do not exist in Persian, it is supposed that their pronunciation errors can be identified and explained by comparing and contrasting the differences between the two languages (Ghorbani, 2011). To examine this, the researchers in the current study helped participating learners identify and notice their specific pronunciation errors and investigated the effect of explicit pronunciation instruction on their vowel perception by formulating the following research question and null hypothesis:

Does explicit pronunciation instruction enhance undergraduate EFL learners' vowel perception?

Ho: Explicit pronunciation instruction does not enhance undergraduate EFL learners' vowel perception.

Review of Literature

Pronunciation Instruction

Pronunciation is an integral part of successful communication. Schmitt (2002) defines it as “a term used to capture all aspects of how we employ speech sounds for communication” (p. 219). According to Kelly (2000), although pronunciation plays an important role in getting one's meaning across, it is a neglected area of English language teaching (ELT). Celce-Murcia, Brinton, and Goodwin (2010) claim that EFL learners need a “threshold level of pronunciation” (p. 8) for comprehensible and intelligible oral communication. Based on Hashemian and Fadaei (2011), good pronunciation is important because it enhances comprehensibility and helps those who have integrative motivation to not be marked as a foreigner. However, in spite of its importance, pronunciation has not yet secured its place in most EFL curricula (Setter & Jenkins, 2005). In Iran, due to the washback effect of written exams, little attention is given to

teaching pronunciation in the public education system (Ghorbani, 2011; Hayati, 2010; Hosseini, 2007).

According to Khaghaninezhad (2013), achieving an acceptable pronunciation in adult language learning, to be understood by native speakers, is one of the main problems that learners of English as a Second Language (ESL) face today. While ESL/EFL learners may achieve native-like proficiency in other aspects of a second/foreign language, they continue to have difficulty with non-native phonemes. Observing their pronunciation errors suggests a great need for ESL teachers to become more aware of the discrepancies between phonological systems. Due to the fact that Persian lacks most of the English vowels, it is difficult for Iranian EFL learners to comprehend and produce English vowel sounds. Therefore, the Persian phonology has an impact on the learning of English phonological features.

Vowels and consonants are the building blocks of every language; however, the characteristic of vowels are, to a large extent, determined by the surrounding consonants in speaking. That is, one token of a vowel may not be the same as another depending on the context in which it happened (Polka, 1994). According to Iverson, Pinet, and Evans (2010), vowel-recognition instruction will help EFL learners identify and produce phonemes. Rochet (1995) found that second language (L2) learners' pronunciation errors correspond to their perception of the phonemes in question. Bradlaw, Rvachew, Shiffrin, Schneider, and Dittman (1997) argue that speech perception training can facilitate speech production. Brown (2000) also discovered that L2 learners' first language (L1) phonemic categories influence their perception of the target language vowel sounds. Cole, Yan, Mak, Fanty, and Bailey (1996) studied the perception of young adults for consonants-only sentences and vowels-only sentences and found that auditory speech intelligibility is, to a great extent, the result of vowel rather than consonant contribution.

Challenges of Teaching Pronunciation

Teaching pronunciation is challenging because teachers often do not have enough time to address it during class. Repetition and imitation of sounds again and again discourage students and lead to pronunciation avoidance (Gilbert, 2008). Lack of suitable textbooks and materials in the Iranian EFL context is another reason for underestimating the importance of pronunciation (Gooniband Shooshtari, Mehrabi, & Mousavinia 2013). Pronunciation was not prioritized in L2 classes for a long time based on the belief that it was not important, could not be taught, and could be dealt with by learners themselves (Silveira, 2002). According to Jones (1997) and Hashemian and Fadaei (2011), arguments against explicit pronunciation instruction are based on two basic assumptions about L2 phonology. First, the Critical Period Hypothesis (CPH) claims that it is almost impossible for adults to acquire native-like pronunciation in a foreign language if it is not learned during the critical period (1-13 years old); and second, according to Krashen (1982), since it is an acquired skill, its formal teaching is useless and even detrimental. Furthermore, Fraser (2002) believes that L2 teachers do not include pronunciation in their classes for the following false reasons:

1. It is a talent, which is not teachable.
2. Students do not like to speak out in class.

3. Correcting is intrusive.
4. There is not enough time.
5. They do not know how to teach it.

Pronunciation instruction has been treated differently during the domination of different approaches and methods. According to Richards and Rodgers (2001) and Larsen-Freeman (2000), the Grammar Translation Method paid no attention to pronunciation while the Direct Method and Naturalistic Approaches focused on repetition and imitation after an initial silent period. Audiolingualism (Howatt, 2004) and the Oral Approach (Howatt, 2004) used pronunciation from the beginning through phonemic contrasts, minimal pair drills, imitation, and some form of phonetic information. The Cognitive Approach (Richards & Rodgers, 2001; Larsen-Freeman, 2000) regarded teaching pronunciation as a waste of time, but the Silent Way Approach (Larsen-Freeman & Anderson, 2011; Larsen-Freeman, 2000) emphasized explicit instruction. The Communicative Approach recognizes the importance of teaching pronunciation; however, it is difficult for teachers and material developers to incorporate its features in their instruction (Gooniband Shoostari, et al., 2013; Silveira, 2002).

Although explicit pronunciation instruction has not been unanimously agreed upon, research has shown that it can have positive effects on learning (Murphy, 2003). Harmer (2001) recommends the instruction of phonemic symbols so that L2 learners can learn the word pronunciation without hearing it. He argues that if both teacher and students know the symbols, it would be easier for them to find out the mistake and its remedy. He contends that students will speak correctly if they hear correctly. So it is necessary for teachers to gradually train their students' ears by drawing the sounds to their attention each time they hear them on a tape and by helping their students recognize and learn new sounds through demonstration and explanation.

According to Derwing and Munro (2005), pronunciation is a complex and multifaceted skill, which is influenced by biological, social, and psychological factors. Jones (2002) argues that pronunciation is mostly affected by the L1, motivation, and interaction with native speakers on which EFL teachers have little influence.

In contrast to perspectives that reject the effectiveness of teaching pronunciation, other perspectives suggest that teaching pronunciation is effective due to its positive role in making L2 learners aware of new sounds and improving their speaking ability (Harmer, 2001). Some studies have already shown the effectiveness of explicit pronunciation teaching (Bruck & Genesee, 1995; Cicero & Royer, 1995; Couper, 2006; Jenkins, 2002; Levis, 2005; Verhoeven, 1994).

Related Theories

Over the years, many theories have built upon one another to contribute to a fuller understanding of how learners' L1 influences their L2 learning. According to Lado's (1957) Contrastive Analysis Hypothesis (CAH), which is steeped in behaviorism, the principal barrier in L2 learning is the interference of L1. Based on this theory, L2 bad habits are due to the interference of L1 rules, and by comparing and contrasting L1 and L2 side by side one can predict, describe, and remedy the potential difficulties that L2 learners would face. However, later studies indicated that this was too difficult to do. For

example, according to Oller and Ziahosseiny (1970), verbs come after the subject and object in Persian, while they come between the subject and object in English, therefore, it is predicted that Persian EFL learners would face difficulty, which, they found, is not always the case.

Contrastive Analysis Hypothesis was questioned because it is almost impossible to predict the errors that foreign language learners made. Error Analysis Hypothesis (EAH) (Banathy & Madarasz, 1969) emerged to analyze learners' errors, determine their prevalence, and draw inferences. Despite the shortcomings that there could be many sources of error apart from the interference from the L1, error analysis is supposed to be an effective tool in highlighting the problems L2 learners face.

According to Swan and Smith (1987), L2 learners' pronunciation errors are due to the L1 sound system influence. However, more research on analyzing errors showed that most errors did not necessarily reflect any characteristics of the learners' L1 or L2. So, the interlanguage theory emerged to explain the language learners' errors. According to Selinker (1972), interlanguage refers to the learner's knowledge of L2 at any given time. Eckman (2011) believes that interlanguage includes not only principles and constructs from L1 and L2, but also principles and constructs that are independent from either one. However, Celce-Murcia et al. (2010) argue that since the idea of language transfer in the realm of phonology has well been accepted, teaching pronunciation based on common errors and organizing the syllabus around those difficulties can be very useful.

According to Zampini (1994), most adult learners are not able to completely learn the L2 phonology without formal instruction comparing the phonological differences between the two languages. Most of the English language vowel sounds that do not exist in Persian are assumed to be difficult for Iranian EFL learners. According to Grossberg (1988), explicit learning can lead to quick input processing. Based on Schmidt's (1990) Noticing Hypothesis, awareness is vital to learning L2. While accepting the importance of incidental learning, Schmidt (1993) argues that focusing on whatever one is trying to learn, and having an awareness of its significance, can facilitate L2 learning to a large extent.

General Approaches to Teaching Pronunciation

Generally speaking, three approaches to teaching pronunciation are intuitive-imitative, analytic-linguistic, and integrative (Celce-Murcia et al., 1996). In the intuitive-imitative approach, there is no explicit instruction—EFL learners simply listen and imitate the pronunciation using technologies, such as audiotapes, videos, computer-based programs, and websites. In the analytic-linguistic approach they receive explicit information (i.e., the phonetic alphabet, articulatory descriptions, and vocal charts) on pronunciation. In the integrative approach pronunciation is practiced within meaningful task-based and pronunciation-focused listening activities and “is viewed as an integral component of communication, rather than an isolated drill” (Lee, 2008, p. 1). In this study, the analytic-linguistic approach was used for the experimental group and the intuitive-imitative approach for the control group. Based on the literature, young adult learners are more likely to learn from explicit teaching while young learners below the critical period age benefit from implicit teaching.

Method

Research Design and Subjects

The participants were 38 female Iranian undergraduate EFL learners at Kosar University of Bojnord (KUB) (a female only institution). The participants attended a two-credit pronunciation course and received one and a half hours of instruction per week. The course was compulsory. The principle investigator of the study conducted the pre- and post-test to be taken as part of the students' normal course work. The participants were not aware of the experiment.

Since random assignment was not possible, the nonequivalent group, pretest-posttest design was employed in this study. That is, subjects were tested in existing groups. Figure 1 summarizes this quasi-experimental design in which the dotted line represents non-equivalent groups. Both groups were measured before and after the treatment. Only one group received the treatment. In this diagram GA and GB stand for experimental and control groups, respectively. T1 and T3 stand for the tests before applying the treatment. T2 and T4 stand for the tests after the treatment, and X stands for treatment.

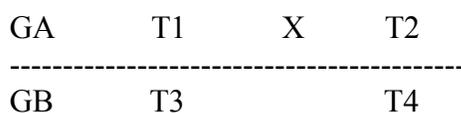


Figure 1. Quasi-experimental design.

Materials and Instruments

The material given to participants was based on the 3rd edition of the book *Ship or Sheep: An Intermediate Pronunciation Course* (Baker, 2006), which included a set of four audio CDs for listening and pronunciation practice. The researchers used the first two audio CDs that related to 22 units in the first section of the book under the title of Vowels. According to Baker, this fully-revised and updated edition provides systematic practice of English pronunciation, with an emphasis on minimal pairs, through a wide variety of interesting exercises and activities. It trains students to recognize and produce English sounds by helping them make the distinction between similar sounds. Its stand-alone units allow learners to focus on sounds they find difficult, and each unit offers comprehensive practice of sounds, with additional work on stress and intonation. The book recommends students to visit www.cambridge.org/elt/shiporsheep for extra practice and web support.

A 40-item vowel-identification test was developed by the researchers based on minimal pair exercises. It was used both as the pretest and the posttest. For the pilot test, 26 subjects, similar to those of this study, responded to the items and helped the researchers establish the reliability of the test, which was estimated at 0.75 through the KR-21 formula.

Procedure

In this study, there were two EFL classes with 19 learners in each. After administering the pretest, the eight-week treatment on English vowel sounds began from

April 6 to May 26, 2014 through minimal pair drills. The subjects took part in one and a half hour classes one day a week in the afternoon during which all the English vowels were introduced to them. The whole class time was allocated for teaching English vowels. Both classes were exposed to authentic pronunciation of vowels from the beginning of the course. In Class A, English vowels were taught through the analytic-linguistic approach in which the subjects listened to the audio CDs and were provided with explicit information on pronunciation (i.e., the phonetic alphabet training, articulatory descriptions of each vowel characteristics, overt explanation and analysis of sounds, and comparison and contrast of the Persian and English vowels where necessary). The subjects were required to look certain words up and check their phonemic transcription in their dictionary. Then, they were asked to pronounce the words using their transcription after five minutes of group work and the researcher would try to help them if necessary.

In Class B, English vowels were taught through the intuitive-imitative approach where the subjects listened to the same audio CDs while looking at their books without the intervention of any explicit information. They also tried to imitate the vowels and their related words carefully. The vowels and the related words used in this study are shown in Table 1.

Table 1

English Vowels and Words

Vowels	Words
i:	Sheep, leak, cheeks, peel, bean, leave, E, bee, tea, pea, bead
ɪ	Ship, lick, chicks, pill, bin, live, pin, tin, pig, bill
U	Put, could, look, rook, books, pull, full, would
u:	Luke, pool, fool, coed, wooed
E	Pen, Ben, ten, peg, bell, cheque, x, men, send, gem, bread, bed, west, shed, edge, wet, test, pepper
ə	A, photograph, Barbara, water, of, binoculars, her, mother, and, father, about, America
ɜ:	Fur, turn, worm, worker, burn, bird, worst, fern, girl, Bert, work, flirt,
ɔ:	Dawn, cord, short, port, forks, sport, four, torn, warm, walker, all, ball, corn, tore, roar, caught, nought, bought, jaw,
Æ	Axe, pan, man, sand, jam, Brad, cap, hat, track, ban, bag, ankle, cat, pack, fax, sack, tap, backs
ʌ	Cup, hut, truck, bun, bug, uncle, cut, come, fun, bud, gull,
ɑ:	Carp, heart, cart, barn, park, barn, bar, bark, Pa, R, car, bra, grass, arch,
ɒ	Hot, cot, fox, sock, top, box, Don, cod, shot, pot, spot, lock, rock
ɪə	Ear, beer, tear, pier, beard, hear, cheers
eə	Air, bear, pear, hair, tear, chairs
eɪ	Pain, shade, age, wait, taste, paper,
ɔɪ	Oil, boil, coin, toy, Roy,
aɪ	Buy, bike, pie, eye, kite, height,

əu	Bone, phone, boat, woke, float, coat, note, Joe, bowl
Au	Cow, bow, brow, grouse, ouch,

At the end of the treatment, the 40-item pretest was used again as the posttest to see if there was any significant difference between the two groups' performances. The pretest and posttest were identical, but the arrangement of the items was different in the posttest. Since there was an interval of one and a half months between the two tests, the posttest was less likely to be influenced by the subjects' memory. The subjects listened to each item three times and wrote the correct answer down during the pretest and posttest. Each correct answer received one mark.

Statistical Analysis and Results

To explore the effects of the two teaching methods on English vowel perception of the EFL learners, the data were subjected to statistical analysis. One point was awarded to every correctly pronounced word regarding vowels. Wrong stress on words having more than one syllable was ignored, because the focus was the correct perception of vowels.

To answer the research question—Does explicit pronunciation instruction enhance undergraduate EFL learners' vowel perception?—after rating the subjects' performance, the raw scores taken from the pretest and posttest were submitted to the computer software Statistical Package of Social Sciences (SPSS version 16), using a t-test. An independent samples t-test was conducted to compare the possible differences between the means of the two groups based on the gain scores from the posttest. The calculation indicated that the analytic-linguistic approach was more effective. The following tables indicate the summary of the t-tests.

Table 2

The Independent Samples t-test for the Experimental and Control Groups (pretest)

Group	N	Mean	Std Dev	df	t	Sig.
Experimental	19	14.36	1.67	36	-1.23	0.22
Control	19	15.10	1.99			

An independent samples t-test was conducted to compare the scores of the two groups before the treatment. First, the Levene's Test for Equality of Variances (Levene, 1960) was checked. If the Levene's Test is significant ($p < .05$), the two variances are significantly different. If it is not significant ($p > .05$), the two variances are approximately equal. In this case, since the Levene's test was not significant ($p = 0.51 > 0.05$), it was assumed that the variances were approximately equal. Next, the results of the t-test were checked. If the variances are approximately equal, the top line is read. If the variances are not equal, the bottom line is read. Based on the results of the Levene's test, it was known that the two groups had approximately equal variances on the dependent variable, so the top line was read.

As indicated in Table 2, there was no significant difference between the EG ($M = 14.36, SD = 1.67$) and the CG [$M = 15.10, SD = 1.99; t (-1.23) = 0.22, p. > .05$] before the treatment.

Table 3

The Independent Samples t-test for the Experimental and Control Groups (posttest)

Group	N	Mean	Std Dev	df	t	Sig.
Experimental	19	34.05	2.29	30.43	6.62	0.000*
Control	19	27.52	3.62			

Note. *Significant at the $p < .05$ level

The second independent samples t-test was conducted to compare the scores of the two groups after the treatment (posttest). First, the Levene's Test for Equality of Variances was checked. Since the Levene's test was significant ($p. = 0.02 < .05$), it was assumed that the variances were not equal. Next, the results of the t-test were checked. Based on the results of the Levene's test, it was known that the two groups did not have equal variances on the dependent variable, so the bottom line was read.

As indicated in Table 3, there was a significant difference between the gain scores for the EG ($M = 34.05, SD = 2.29$) and the gain scores for the CG [$M = 27.52, SD = 3.62; t (6.62) = 0.000, p < .05$]. This final result shows that the mean score of the EG after the treatment was more than the CG. Since there was a significant difference between the means of the two groups, the null hypothesis—Explicit pronunciation instruction does not enhance undergraduate EFL learners' vowel perception—was rejected. Therefore, the effectiveness of explicit pronunciation instruction was supported.

Conclusion and Limitations

This study was an attempt to investigate the effect of explicit pronunciation instruction on undergraduate EFL learners' vowel perception. The findings indicate that explicit vowel instruction, through raising learners' awareness or consciousness, is more effective than implicit teaching of vowels through the intuitive-imitative approach (repetition and imitation of sounds) in which learners are made to listen to vowel pronunciation drills and imitate them. The implication is that although exposing learners to natural vowel sounds improves their vowel perception, formal explicit instruction of the L2 phonology should not be underestimated. In line with Khaghaninezhad's (2013) findings, the results of this study suggest that the exposure alone to natural speech is not enough to improve EFL learners' performance in vowel perception; rather, attention to phonetic differences of the target language can enhance L2 vowel perception. While the findings are against the CPH claim that explicit pronunciation instruction is useless for adults, they are in keeping with Jenkins' (2002) suggestion that this kind of instruction is an integral part of an L2 curriculum.

The findings of this study have implications for both EFL teachers and learners in terms of teaching and learning English vowels. By raising their students' consciousness

of vowel sounds, teachers can help them build upon their basic awareness and gain what they need for effective communication. It is hoped that the results of this study can provide EFL teachers with insights and motivation to integrate explicit pronunciation instruction into their classes.

The findings of this study may not be generalized to contexts where English as a Second Language (ESL) and English as an Additional Language (EAL) instruction is taking place. The inclusion of explicit pronunciation is needed in the EFL contexts because English is not spoken in the context, but in ESL contexts it may not benefit learners in the same way. Explicit pronunciation instruction may have implications for ESL and EAL students in English speaking countries; however, this study was conducted in an EFL context. More research is needed for ESL contexts.

As in other empirical studies, this study also has its own limitations, and the results need to be used cautiously. Therefore, more studies are needed to replicate the findings of the present study. Firstly, the number of participants was low; more studies are needed to use a larger number of participants to guarantee the external validity of the study. Secondly, more studies are needed to compare the effect of both implicit and explicit teaching pronunciation simultaneously.

References

- Baker, A. (2006). *Ship or sheep: An intermediate pronunciation course*. Cambridge: Cambridge University Press.
- Banathy, B. H., & Madarasz, P. H. (1969). Contrastive analysis and error analysis. *Journal of English as a Second Language*, 4(3), 77-92.
- Brown, C. (2000). *The interrelation between speech perception and phonological acquisition from infant to adult*. Oxford: Blackwell Publications.
- Bruck, M., & Genesee, G. (1995). Phonological awareness in young second language learners. *Journal of Child Language*, 22, 307–324.
- Celce-Murcia, M., Brinton, D. M., & Goodwin, J. M. (1996). *Teaching pronunciation*. Cambridge: Cambridge University Press.
- Celce-Murcia, M., Brinton, D., & Goodwin, J. (2010). *Teaching pronunciation: A course book and reference guide* (2nd ed.). Cambridge: Cambridge University Press.
- Cicero, C., & Royer, J. (1995). The development and cross-language transfer of phonological awareness. *Contemporary Educational Psychology*, 20, 275–303.
- Cole, R., Yan, Y., Mak, B., Fenty, M., & Bailey, T. (1996, 7-10 May). *The contribution of consonants versus vowels to word recognition in fluent speech* (pp. 853 - 856 vol. 2). Proceedings of the International Conference on Acoustics, Speech and Signal Processing. Atlanta, Georgia.
- Couper, G. (2006). The short and long-term effects of pronunciation instruction. *Prospect*, 21, 46–66.
- Derwing, T., & Munro, M. (2005). Second language accent and pronunciation teaching: A research-based approach. *TESOL Quarterly*, 39(3), 379-397.
- Eckman, F., (2011). Review article: Spanish-English and Portuguese-English interlanguage phonology. *Second Language Research*, 27, 273-282.

- Eslami-Rasekh, Z., & Valizadeh, K. (2004). Classroom activities viewed from different perspectives: Learners' voice vs. teachers' voice. *TESL EJ*, 8(3), 1-13. Retrieved October 9, 2008, from <http://tesl-ej.org/ej31/a2.html>
- Eslami-Rasekh, Z., & Valizadeh, K. (2008). Teachers' sense of self-efficacy, English proficiency, and instructional strategies: A study of nonnative EFL teachers in Iran. *TESL EJ*, 11(4), 1-19. Retrieved from <http://tesl-ej.org/ej44/a1.pdf>
- Fraser, H. (2002, October). Change, challenge and opportunity in pronunciation and oral communication. Plenary Address at English Australia Conference, Canberra.
- Ghorbani, M. R. (2011). The impact of phonetic instruction on Iranian students' listening ability enhancement. *Asian EFL Journal*, 52, 24-34.
- Gilbert, J. B. (2008). *Teaching Pronunciation Using the Prosody Pyramid*. New York: Cambridge University Press.
- Gooniband Shooshtari, Z., Mehrabi, K., & Mousavinia, S. R. (2013). A call for teaching pronunciation in Iranian schools. *International Journal of Academic Research in Progressive Education and Development*, 2(1), 454-465.
- Grossberg, S. (1988). Nonlinear neural networks: Principles, mechanisms, and architectures. *Neural Networks*, 1, 17-61.
- Harmer, J. (2001). *The practice of English language teaching* (3rd ed.). London: Pearson Education.
- Hashemian, M., & Fadaei, B. (2011). A comparative study of intuitive-imitative and analytic-linguistic approaches towards teaching English vowels to L2 learners. *Journal of Language Teaching and Research*, 2(5), 969-976.
- Hayati, M. (2010). Notes on teaching English pronunciation to EFL learners: A case of Iranian high school students. *English Language Teaching*, 3(4), 121-126.
- Hosseini, S. M. H. (2007). ELT in higher education in Iran and India: A critical view. *Language in India*, 7, 1-11.
- Howatt, A. P. R. (with Widdowson, H. G.). (2004). *A history of English language teaching* (2nd ed.). Oxford, UK: Oxford University Press.
- Iverson, P., Pinet, M., & Evans B. G. (2010). Auditory training for experienced and inexperienced second-language learners: Native French speakers learning English vowels. *Applied Psycholinguistics*, 26(2), 1-16.
- Jenkins, J. (2002). A social-linguistically based, empirically researched pronunciation syllabus for English as an international language. *Applied Linguistics*, 23(1), 83-103.
- Jones, R. H., (1997). Beyond "listen and repeat": Pronunciation teaching materials and theories of second language acquisition. *System*, 25(1), 103 - 112.
- Jones, R. H. (2002). Beyond "listen and repeat": Pronunciation teaching materials and theories of second language acquisition. In J. Richards & W. A. Renandya (Eds.), *Methodology in language teaching: An anthology of current practice* (pp. 178-187). Cambridge: CUP.
- Kelly, G. (2000). *How to teach pronunciation*. Malaysia: Pearson Education Limited.
- Khaghaninezhad, M. S. (2013). The effect of vowel-recognition training on beginner and advanced Iranian ESL learners. *The Journal of Teaching Language Skills*, 5(2), 51-67.

- Krashen, S. (1982). *Principles and practice in second language acquisition*. New York: Pergamon.
- Lado, R. (1957). *Linguistics across cultures: Applied linguistics for language teachers*. Ann Arbor, Michigan: The University of Michigan Press.
- Larsen-Freeman, D. (2000). *Techniques and principles in language teaching*. Oxford: Oxford University Press.
- Larsen-Freeman, D., & Anderson, M. (2011). *Techniques and principles in language teaching* (3rd ed.). New York, NY: Oxford University Press.
- Lee, S. T. (2008). *Teaching pronunciation of English using computer assisted learning software: An active research study in an institute of technology in Taiwan*. (Masters thesis). Available from *Australian Catholic University*. <http://dlibrary.acu.edu.au/digitaltheses/public/adt-acuvp174.16092008/02whole.pdf>
- Levene, H. (1960). Robust tests for equality of variances. In *Contributions to Probability and Statistics*. (I. Olkin, ed.) 278-292. Stanford Univ. Press, Palo Alto, CA.
- Levis, J. (2005). Changing contexts and shifting paradigms in pronunciation teaching. *TESOL Quarterly*, 39(3), 369-377.
- Murphy, J. (2003). Pronunciation. In D. Nunan (Ed.), *Practical English language teaching* (pp. 111-128). Boston: McGraw-Hill.
- Oller, J. W. Jr., & Ziahosseiny, M. (1970). The contrastive analysis hypothesis and the spelling errors. *Language Learning*, 20, 183-189.
- Polka, L. (1994). Linguistic influences in adult perception of non-native vowel contrasts. *Journal of the Acoustical Society of America*, 97, 1286-1296.
- Prator, C. H. (1991). Cornerstones of method and names for the profession. In M. Celce-Murcia (Ed.), *Teaching English as a second or foreign language* (2nd ed.). New York: Newbury House.
- Richards, J.C., & Rodgers, T.S. (2001). *Approaches and methods in language teaching* (2nd ed.). Cambridge: CUP.
- Rochet, B. L. (1995). Perception and production of second-language speech sounds by adults. In W. Strange (Ed.), *Speech perception and linguistic experience: Issues in cross-language research*. Baltimore, MD: York Press.
- Schmidt, R. (1990). The role of consciousness in second language learning. *Applied Linguistics*, 11, 129-158.
- Schmidt, R. (1993). Consciousness, learning and interlanguage pragmatics. In G. Kaspar & S. Blum-Kulka (Eds.) *Interlanguage pragmatics*. (pp. 21-41). Oxford: Oxford University Press.
- Schmitt, N. (2002). *An introduction to applied linguistics*. London: Oxford University Press.
- Selinker, L. (1972). Interlanguage. *International Review of Applied Linguistics*, 10, 209-231.
- Setter, J., & Jenkins, J. (2005). Pronunciation. *Language Teaching*, 38(1), 1-17.
- Silveira, R. (2002). Pronunciation instruction: Classroom practice and empirical research. *Linguagem & Ensino*, 5(1), 93-126.
- Swan, M., & Smith, B. (Ed.). (1987). *Learner English: A teacher's guide to interference and other problems*. Cambridge: Cambridge University Press.

- Verhoeven, L. (1994). Transfer in bilingual development: The linguistic interdependence hypothesis revisited. *Language Learning* 44, 381–384.
- Zampini, M. L. (1994). The role of native language transfer and task formality in the acquisition of Spanish spirantization. *Hispania*, 77(3), 470-481.

Author Biographies

Dr. Mohammad Reza Ghorbani is Assistant Professor of Teaching English as a Second Language (TESL) at the University of Bojnord, Bojnord, Iran. He has worked as an EFL teacher and researcher in Iran, Japan, and Malaysia since 1990. He has published four books on educational issues and one in Germany, as well as nineteen articles in specialized international journals. He has also presented seven papers in international conferences. His interests are English Teaching, Learning, Testing, and Evaluation. He is currently the president of Kosar University of Bojnord.

Malihe Neissari is an MA student of TEFL at Tabaran Institute of Higher Education.

Hamid Reza Kargozari is a lecturer and Ph.D. candidate in TEFL at Tehran Payam Noor University, Iran. His current research interests cover issues in English Language Teaching, Second Language Acquisition, and Psycholinguistics. He has been involved in a range of projects in the area of applied linguistics.