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A Corpus-based Pronunciation Teaching Model: A Conceptual Paper

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Abstract

Learning a second language is challenging, but mastering pronunciation is even more difficult. Researchers continuously seek new ways to improve students' English abilities, such as listening and speaking, while ignoring the importance of pronunciation. After conducting a literature review, this article investigates the impact of corpora and two instructional methods on improving students' pronunciation. The paper addresses how to teach pronunciation effectively in the context of English as a second language. According to the review, corpus resources, critical listening, and shadowing can all be used independently to enhance students' proficiency in second language learning. Hence, an innovative Corpus-based Critical Listening and Shadowing model has been devised as an aid in the teaching of pronunciation by providing more specific suggestions for teachers and students, with the expectation that students will perform better once they have been taught pronunciation using the methodology. The current study's findings have pedagogical and methodological implications for pronunciation teaching, learning and research. The implications and future directions of the innovative Corpus-based Critical Listening and Shadowing model are also discussed.

Keywords: Corpus-based research, critical listening, pronunciation teaching model, shadowing, conceptual paper

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Oian & Deris

Introduction

The teaching of pronunciation, as well as other English skills, such as speaking and listening, has improved significantly during the past 150 years. The ability to pronounce words clearly is crucial for effective communication (Derwing & Munro, 2015; Pennington & Rogerson-Revell, 2019). Despite being one of the most critical abilities for Second Language (L2) learners, it has generally been neglected by research and academia. Studies have shown that teaching pronunciation enhances learners' awareness of pronunciation, capacity to practice pronunciation, and communication ability. Since the corpus was introduced throughout these decades, scholars have begun analysing, evaluating, and annotating students' articulations (Ernestus & Warner, 2011; Livescu & Glass, 2004; Ng, Kwan, Lee, & Hain, 2017). Even though the corpus helped evaluate the quality of students' pronunciations, its significance for pronunciation instruction should not be understated. This topic has, however, received little research attention. Gut (2005) presented a corpus-based pronunciation training method based on learner corpora, as opposed to most corpora used in previous corpus-based pronunciation studies, and proved its effectiveness.

Gut's study provided the foundation for developing the innovative Corpus-based Critical Listening and Shadowing (iCCLASH), an instructional model for pronunciation. The effectiveness of critical listening has been demonstrated by some pronunciation experts (Couper, 2011; Fraser & Perth, 1999; Thompson & Gaddes, 2005). Shadowing is generally considered a technique that improves listening and interpreting skills in Second Language Acquisition (SLA), but increasing numbers of researchers are examining its use in pronunciation instruction (Foote & McDonough, 2017; Hsieh, Dong, & Wang, 2013; Sugiarto, Prihantoro, & Edy, 2020). Few studies, however, have taken all of these factors into consideration when teaching pronunciation. The present study aims to fill this gap by combining the three methodologies or techniques and formulating an effective teaching model for pronunciation instruction or learning.

The author examines the evolution of pronunciation teaching, corpus-based teaching research, critical listening, and shadowing in the following sections using conceptual research methodology (e.g., Gilson & Goldberg, 2015; Jaakkola, 2020), which is based on the structure proposed by McGregor (2017). Identifying the theoretical foundations is the next step. Following the presentation of a conceptual model and related research propositions, the implications and limitations of the study are discussed. Tables and figures were generated using data collected from Web of Science (WoS) and Scopus. Graphs were created using Python, and literature clusters were visualised using CiteSpace (Chen, 2006).

Literature Review

Pronunciation Teaching

As English has evolved over the years, so has its teaching method. Teaching priorities and concerns about pronunciation have changed over time due to pedagogical changes (Pennington & Rogerson-Revell, 2019). It is crucial to examine pronunciation teaching in relation to its historical and contemporary contexts to make informed decisions regarding this area of pronunciation

teaching. As shown in Appendix, pronunciation teaching has evolved after becoming a research focus of scholars.

As a research focus or neglected topic, pronunciation in language teaching has varied with the development of mainstream teaching methodologies over the past 150 years. Wahid and Sulong (2013) contended that "the rise and fall of pronunciation instruction is associated with the dominant teaching methodology of the time" (p. 134). After a period of neglect during the era of grammar-translation, it was resurrected during the audiolingual method, and then was downplayed once more following the Communicative Language Teaching (CLT). As the development of pronunciation teaching has evolved over the years, there have been some ups and downs. When the grammar-translation method was used in classrooms before the 1850s, a limited number of classroom research records tended to concentrate on topics other than pronunciation teaching. After the direct method (also known as the intuitive-imitative approach or the imitative-intuitive approach) was introduced in 1850s, some scholars began emphasising speaking abilities rather than grammar translation, even though it was not necessarily about pronunciation. Having no professional organisations or journals to share their ideas, the efforts of the innovators of the direct method in language classrooms were ineffective. Despite their minimal influence in language classrooms, their research helped pave the way for the development of pronunciation training during the following decades (Pennington & Rogerson-Revell, 2019).

The foundation of the International Phonetic Association (IPA) contributed significantly to the development of pronunciation teaching by forming the IPA and formulating the four core principles, in addition to developing analytic-linguistic instructional techniques for teaching pronunciation during the period 1886-1889.

During the 1890s-1970s, many types of teaching methods were developed. It was also during this period that phoneticians' activities were spurred by the rapid advancement of educational techniques. This period was marked by two prominent figures, Pike (1945), who developed a system for describing American English intonation, and Abercrombie, who published several innovative articles about pronunciation teaching between the 1940s and 1950s (e.g., 1949a, 1949b). Additionally, Abercrombie wrote articles discussing the importance of intelligibility in English as a Second Language (ESL) classrooms and the purpose of transcription e.g., Abercrombie (1956). However, he failed to attract the scholars' attention at that time. Academics did not consider intelligence seriously until Derwing and Munro (2005) suggested integrating intelligibility, comprehensibility and accentedness.

From the 1950s to the mid-1980, pronunciation development suffered a low ebb (Reed & Levis, 2015). It should be noted that despite this, a four-editioned textbook was widely used in universities and institutions, and this was called the *Manual of American English Pronunciation* (MAEP) (Prator, 1951; Prator & Robinett, 1957, 1972, 1985). The first two editions of MAEP were released in 1951 and 1957 before the peak of the Audiolingual Method (ALM), whereas the third and fourth editions were released after AML had already begun to decline.

Developed by Skinnerian Behavioral Psychology theories, ALM emphasises spoken

accuracy in stress, rhythm, and intonation through imitation-intuition. "The teacher pays attention to pronunciation, intonation, and fluency. Correction of mistakes of pronunciation or grammar is direct and immediate." (Richards & Rodgers, 1986, p. 58). Consequently, pronunciation teaching in this period developed to a great extent.

Since the release of the last MAEP edition in 1980, CLT has had a significant impact on pronunciation instruction. Pica (1984) observed a shift from the explicit teaching of language usage principles toward the learner's active participation in language use. Therefore, she created resources that focus on teaching pronunciation for communicative activities. A suprasegmental approach became popular in pronunciation academia after the introduction of CLT, as researchers realised that introducing pronunciation in a second language through a segmental approach was not the most efficient method because it focused on the specific rather than the general characteristics of accent. Despite the controversy regarding which is more critical, suprasegmental or segmental features, pronunciation teaching has progressed significantly due to this debate.

The market for Computer-Assisted Language Learning (CALL) and Computer-Assisted Pronunciation Training (CAPT) has increased dramatically over the last few decades. As Pennington and Rogerson-Revell (2019) stated, "Both are having major effects on education and language learning and teaching, and so research on their effects is important" (p. 235). Using corpus-based software to support interactive learning activities students undertake with the assistance of computers is an essential application of CALL (Lüdeling & Kytö, 2008). Therefore, corpus-based pronunciation teaching remains a promising area of research that needs more attention in the future.

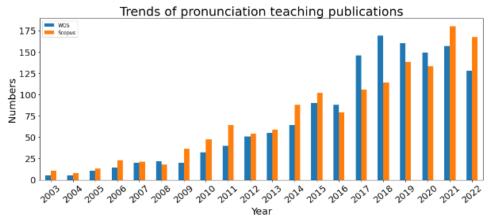


Figure 1. WoS and Scopus publications on pronunciation teaching (December 31, 2022)

Figure one illustrates how pronunciation instruction has gained much attention in recent years. Researchers are becoming more aware of the importance of pronunciation. How will teachers improve their students' pronunciation abilities, and what strategies can be used to enhance their pronunciation outcomes? This topic has been explored extensively by some scholars who are interested in it.

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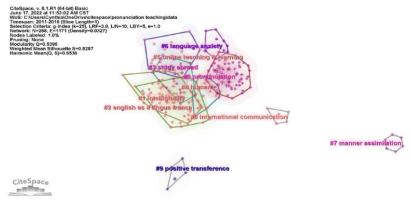


Figure 2. Clusters of pronunciation teaching from 2011 to 2016 (WoS and Scopus publications)

According to Figure two, studies on pronunciation teaching can be concluded in Table two in the early half of this decade. Researchers are more interested in intelligibility, English as a lingua franca, online teaching and learning, language anxiety, manner assimilation, international communication and positive transference. Although some of these topics may have overlapped, they were the scholars' top priority. Aside from that, they discuss pronunciation judgement, teacher recognition, and student speech perception in their paper.

Table 1. Research on pronunciation teaching from 2011 to 2016

Research Focuses	Studies
Intelligibility	Saito, Webb, Trofimovich and Isaacs (2016); Kang (2012); Crowther, Trofimovich, Isaacs and Saito (2015);
English as a Lingua Franca	Walker and Zoghbor (2015); Wach (2011); Rahimi and Ruzrokh (2016)
Online Teaching and	Mompean and Fouz-González (2016); Van Schaik, Lynch, Stoner and Sikorski
Language Anxiety	Szyszka (2011); Lee (2016); Baran-Łucarz (2014)

Towards the end of this decade, the number (in Scopus and Web of Science database) of papers on pronunciation teaching has increased to around 1000, twice as many as there were from 2011 to 2017.

Referring to Figure three, intelligibility remains the top priority, and English as a lingua franca remains a significant concern. In addition to the aforementioned topics, academics are also interested in speech recognition, computer-aided instruction, orthographic learning, machine learning and translanguaging.



Figure 3. Clusters of pronunciation teaching from 2017 to 2022

Table three lists the topics and the researchers who are interested in them. Although Gut (2005) proved that corpus-based pronunciation training works, few studies have combined corpora with pronunciation training.

Table 2. Research on pronunciation teaching from 2017 to 2022

Research Focuses	Studies
Intelligibility	Gluhareva and Prieto (2017); Galante and Thomson (2017); Suzukida and Saito (2021)
Speech Recognition	Kim, Seltzer, Li and Zhao (2018); Haikun, Shiying, Xinsheng and Yue (2019)
Computer Aided	(Chen & Li, 2016); Spaulding, Chen, Ali, Kulinski, Breazeal and Acm (2018)
Orthographic Learning	Li, Li and Wang (2020); Wegener, Wang, Nation and Castles (2020)

Corpus-based Teaching Research



Figure 4. Corpus-based teaching research from WoS and Scopus (2018-2022)

The WoS and Scopus databases contain several corpus-based and corpus-assisted studies, however, not all of them pertain to teaching or research. Between 2018 and 2022, more than a thousand studies involving corpus-based research have been published in either WoS or Scopus. Depending on their relevance, only the first thousand papers were downloaded. The number of records left after deduplication was 1469. Considering that "corpus" and "teaching" were the keywords for the search, it is not surprising that teaching appears as the first label. Figure four shows a summary of these studies. It seems that researchers are more interested in academic writing (Dong & Lu, 2020; Gardner & Han, 2018), data-driven learning (Crosthwaite, Wong, & Cheung, 2019; Otto, 2021), learner corpus (Davidson, Yamada, Fernandez-Mira, Carando, Gutierrez, & Sagae, 2020; Huang, Kubelec, Keng, & Hsu, 2018), vocabulary and lexical issues (Lu & Dang, 2022; McKee, Safar, & Alexander, 2021), and teacher training (Chen, Flowerdew, & Anthony, 2019; Ma, Tang, & Lin, 2021). They have demonstrated that corpus learning is beneficial to L2 language acquisition. However, few of these studies included pronunciation instruction.

The usefulness of corpus-based methods for teaching and mastering pronunciation has yet to receive much prior study. Despite this, some data suggest that there could be advantages. According to Gut (2005), students who took the corpus-assisted pronunciation training course demonstrated significant improvements in their ability to comprehend the prosodic meaning and place the correct stress in pronunciation after two stages of trials: corpus in a pronunciation training

course and corpus in a data-driven approach. In reviewing a few research studies, Gut (2014) also concluded that the corpus-based approach to teaching pronunciation had some advantages over other methods. Cao (2016) detailed the creation and application of a programme that enables instructors and students to compare the speech patterns of native English speakers and Mandarin speakers of English using an English speech corpus of Mandarin learners. It is crucial to consider how corpora might be used in classroom instruction for language acquisition.

Critical Listening

First introduced by Fraser, critical listening allows "learners to compare and contrast incorrect pronunciation with correct pronunciation" after listening to the audio, especially their own voice (Fraser, 2001, p. 45). Fraser and Couper investigated the theoretical underpinnings of critical listening and demonstrated its effectiveness in learners' pronunciation development.

Fraser (2001) provided a framework that explains how beginners of English language learning can be helped to learn pronunciation as part of a structured language course by providing teaching principles. In her research, she defined beginners as "adults in the early stages of learning English as a second language" (p. 50). Some of these "beginners" may have a basic understanding of grammar and vocabulary, as well as some advanced knowledge, but may not be adept at correct pronunciation. The beginner is similar to the learners in general universities as opposed to the learners at prestigious universities in countries where English is taught as a second language. They are considered intermediate learners regarding English proficiency, however, they do not have extensive knowledge of pronunciation, as they have not studied it systematically before.

Fraser suggested that to determine if a student's version of a given statement was correct, it would be ideal for students to listen to recordings of their voices, even if they could say the same thing repeatedly. She also advised playing pre-recorded audio of other non-native speakers and allowing the students to analyse their pronunciation if conducting the class was challenging. Furthermore, Couper emphasised that the teacher could have the students form a group to listen to their partner's recordings and determine if the recordings were accurate. The teacher should then assist the students in identifying the salient differences. According to them, this method has been proven to be effective for intermediate learners attempting to learn pronunciation.

Currently, critical teaching is applied primarily to teaching pronunciation (Couper, 2015; Fraser, 2009) and listening skills (Ferrari-Bridgers & Murolo, 2022; Kazu & Demiralp, 2017). Several studies have demonstrated that critical listening can enhance teaching. In light of limited current research, more empirical testing is needed.

Shadowing

As suggested by Kadota (2019), shadowing can assist L2 learners in listening intently, repeating the content vocally, and paying attention to what they hear. Cherry, Halle and Jakobson (1953) described it for the first time by saying that it involved listening and repeating words as accurately and quickly as possible. Although it has also been successful in learning foreign

languages, the approach was widely utilised in training simultaneous interpreters (Lambert, 1992).

There are two imitation techniques: shadowing and mirroring. These techniques differ in that shadowing involves repeating along with or slightly following a speaker but not mirroring their movements, whereas mirroring involves mimicking the speaker's gestures, facial expressions, and body movements while simultaneously repeating them. In light of this, shadowing is more suitable for training pronunciation.

Figure five illustrates the trends of shadowing publications from the Web of Science Core Collection. As of 2019, increasing research has been conducted on shadowing as a valuable teaching tool to improve students' language abilities, such as listening, speaking, reading and pronunciation, since Lambert introduced it into simultaneous interpreting in 1992. Before 2016, scholars focused primarily on interpreting, and after 2016, they shifted their focus to listening. Pronunciation was not emphasised by many of them.

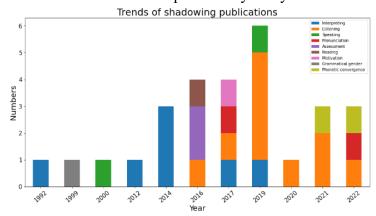


Figure 5. Trends of shadowing publications (December 24, 2022)

Several articles have recently described shadowing, particularly in Japan, but many have not been peer-reviewed, so more empirical study is required (Pennington & Rogerson-Revell, 2019). In addition, few of these studies have combined critical listening and shadowing with pronunciation instruction. Thus it could be beneficial to look into the effectiveness of doing so.

Innovative Corpus-based Critical Listening and Shadowing Model

By integrating the three distinct ideas of the corpus (the learner spoken corpus), critical listening, and shadowing into pronouncing instruction, an iCCLASH model is developed. Initially, the reason for selecting the audio files from the learner spoken corpus was explained. There are several types of corpus. Learner corpora consist of the writing or speech of second-language learners (McEnery, Xiao, & Tono, 2006). Spoken corpora are collections of audio and/or video files or transcriptions of spoken languages (Andersen, 2010). Hence, a learner spoken corpus is a collection of speech data (audio or video) of learners who are acquiring a second language. Following Fraser (2001), the teacher may play pre-recorded audio of other non-native speakers and allow the students to analyse their pronunciation. It took a lot of work for teachers to access pre-recorded audio of other non-native speakers in the past, however, the learner spoken corpus offered a convenient alternative.

In addition, the author wishes to emphasise the importance of critical listening in this model. Cognitive phonology suggests that L2 learners benefit from continuous exposure to the Native Language (NL) to understand the differences between the L2 phonological system and the NL phonological system since simple explanations and practice are insufficient (Fraser, 2006, 2010). The work Langacker (1987) and Taylor (2002) did contribute to Cognitive Phonology, a subfield of Cognitive Grammar in Cognitive Linguistics. Following the cognitive phonology theory, critical listening is more effective in improving learners' phonological awareness when utilising learner spoken corpora.

Finally, the author elucidates the necessity of shadowing in this model. Krashen emphasised the significance of linguistic input in learning a second language. He also believed that sufficient understandable input might facilitate learning a second language. In 1985, Swain proposed the output hypothesis which could be considered a complement to the input hypothesis. The output hypothesis suggested that comprehensible input played a significant role in the process of SLA, but it was insufficient to develop learners' second language proficiency comprehensively. According to Swain (1985), when people listen or read, which is called input, they may not need to go through syntax processing and can understand the meaning based on the context or other relevant information. In the output process, when people speak or write, they can make themselves more understandable by arranging the words properly, which is called syntax structure. Gass (1988) improved the model by suggesting that there were five levels in a learner's conversion of ambient speech (input) to output, as seen in Figure six: (1) apperceived input, (2) comprehended input, (3) intake, (4) integration, and (5) output.

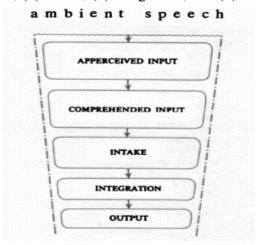


Figure 6. A framework for second language studies (Adopted from Gass, 1988, p. 200)

According to this concept, students who desire to acquire a second language naturally require both intelligible input and comprehensible output. Language output is crucial for developing language competency, along with understandable input.

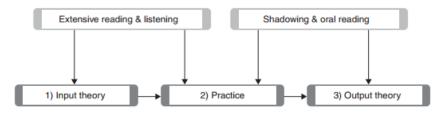


Figure 6.10 Input- and output-driven practice (Kadota, 2015, p. 36)

Figure 7. Shadowing as a part of Input and Output practice (Adopted from Kadota, 2019, p.

Kadota (2019) states that shadowing is an output impact that can contribute to adequate outputdriven practice, as shown in Figure seven. Therefore, it may be considered as a potent method for enhancing learners' pronunciation abilities.

Based on the previously discussed points, Figure eight presents an illustration of the iCCLASH model.

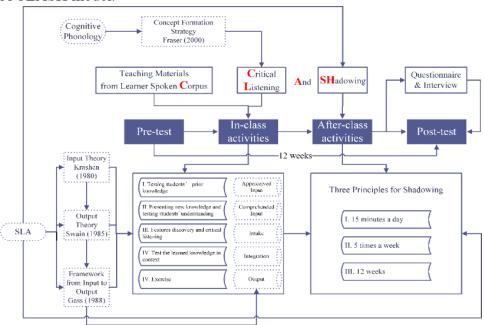


Figure 8. Conceptual model

Computers, particularly corpora, are useful in learning second languages in numerous studies carried out previously. Among those, only a few focused on linguistic skills, such as pronunciation. Few studies have combined shadowing and critical listening, two effective methods of improving learners' listening, speaking, and translating abilities. This paradigm combines both of these methods with corpus-assisted instruction.

Figure eight summarises some of the significant concepts. The theoretical underpinning of the study was SLA-based input and output theory, as was previously mentioned. It illustrates the relationship between the research procedures and how the ideas influence the construction of the model. This model should be taught over at least 12 weeks. All aspects of teaching are represented in the blue box, including pre-tests, in-class activities, out-of-class activities, and post-tests. The

dashed box represents the study's direction, the idea that motivated the study. Pre- and post-tests compared students' performance before and after the teaching plan is implemented. Each step of the in-class exercises is in line with the five stages of the input and output SLA framework proposed by Gass (1988).

Additionally, the assessment step of this process model, which entails accessing and analysing the experiences of students participating in corpus-assisted pronunciation training, needs to be highlighted. Oral and listening tests are part of the pre- and post-tests. Understanding the phenomenon accurately and thoroughly requires the use of a variety of instruments. A questionnaire and interview are used in conjunction with corpus-assisted pronunciation training to evaluate the effectiveness of pairing critical listening and shadowing.

Discussion

The role of pronunciation teaching in SLA research has waxed and waned along with the evolution of the teaching methods as an overlooked research topic or a study focus of scholars. Pennington (2021) asserted that it is "safe" to conclude that the value of pronunciation instruction in the classroom will not be contested (p. 3). However, there have been few studies on how to teach it. By examining the literature, the study aims at developing a valuable model for pronunciation instruction that may offer helpful suggestions.

Strengths and Weaknesses of the Previous Studies

Previous studies on pronunciation teaching have made significant contributions over the past 150 years, such as the IPA, the MAEP, etc. With the advent of technology, pronunciation instruction in the classroom can also be facilitated through the CAPT method. The first corpusbased pronunciation training method was demonstrated by Gut (2005) after corpora were widely used in linguistic research, and she provided evidence to support her claim in 2014 that corpusbased pronunciation training has some advantages over other teaching methods. Couper (2009, 2011, 2015) and Fraser (2001, 2009) developed a critical listening strategy by providing a theoretical foundation to support their arguments. Kadota (2019) systematically introduced shadowing as a practical technique in SLA and concluded that intensive reading positively impacted learners' output performance. But he did not emphasise the possible eminent impact of shadowing on pronunciation teaching. In conclusion, no research has linked one of them with another in the field of pronunciation research. Therefore, this is of significance to the area.

Limitations

Potential limitations to this conceptual model include sample bias, an insufficient sample, the selection of corpus-assisted teaching materials, the way to conduct pre- and post-test, and the quality of the after-class activities. Further evidence need to be collected in order to further validate or refine this innovative teaching approach.

Implications of the Model

The iCCLASH was an updated model based on the author's previous research (Qian & Deris, in press) by providing more pedagogical instructions for teachers and shadowing principles for teachers and language learners. This model has the following implications:

- 1. Incorporating critical listening and shadowing into corpus-based pronunciation teaching is intended to greatly improve learners' performance.
- 2. To contribute to future theoretical studies, it presents the theories based on the three separate elements.
- 3. Detailed instructions for in-class procedures and explicit principles for after-class activities follow an evident process for conducting this research.

Recommendations

The model is designed for first-year students majoring in English. This method needs to be tested for other levels of L2 learners, including beginners or those with employment-related pronunciation needs. Teachers' interventions should also be compared at different stages of instruction. Finally, the impact of students' perceptions of this teaching model on their learning performance must also be assessed.

Conclusion

As a result, this research investigates a literature review of corpus-based learning, critical listening, and shadowing, all based on the reasoning and justifications supporting the proposed model. To maximise the effectiveness of corpus-based pronunciation instruction, the iCCLASH model incorporates the two instructional methods. There is a reasonable expectation that this will significantly improve students' performance in terms of pronunciation. The model's implications, limitations and future directions were discussed to give the instructor more inspiration and remind them to prepare for any difficulties they could have while using the model.

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Appendix Development of Pronunciation Teaching

Development of Pronunciation Teaching				
Term	Explanation	Source		
Direct/Reform method: 1850s- 1880s	Louvier (1863, 1889) and Viëtor (1905) resisted the grammatic-philological method and suggested that language learning requires a thorough understanding of pronunciation, an intense study of reading, and an inductive approach to teaching grammar.	Louvier 1863 1889; Viëtor 1905		
International phonetic alphabet: 1887	Passy (1888) published the first phonetic alphabet of the modern era.	Passy 1888		
Analytic-linguistic approach: 1880s- 1890s	The analytical-linguistic approach supported listening, imitation, and production through tools and information, such as a "phonetic alphabet, articulatory descriptions, vocal apparatus charts, contrastive information", and other types of data (Celce-Murcia, Brinton, & Goodwin, 1996, p. 2).	Celce-Murcia et al. 1996		
Intonation system: 1945	The American English intonation system was first described by Pike (1945), an early innovator.	Pike 1945		
The role of intelligibility and the use of transcription: 1950s	According to Abercrombie (1949a, 1949b, 1956), the role of intelligibility and the use of transcription in English as a Second Language (ESL) classrooms were integral to his innovative discussion of pronunciation teaching.	Abercrombie 1949a, 1949b, 1956		
Manual of American English Pronunciation (MAEP): 1951, 1957, 1972, 1985	The <i>Manual of American English Pronunciation</i> (Prator, 1951; Prator & Robinett, 1957, 1972, 1985) was one of the most popular ESL textbooks in the US that dealt with the teaching of pronunciation in colleges, universities, and other institutions across the country for over 20 years.	Prator 1951; Prator & Robinett 1957, 1972, 1985		
	The Audiolingual Method is "A method developed in the United States based on behaviourist learning theory. It emphasises the importance of pattern practice through mimicry and repetition to develop correct 'habits'." (Ellis, 2015, p. 337)	Ellis 2015		
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Minimal pair: 1972, 1975	As a result of empirical findings, minimal pair theory has been widely applied to teaching pronunciation contrasts in first- and second-language contexts (Bowen, 1972).	Bowen 1972
Communicative language teaching (CLT): 1970s- 1980s	In the mid- to late 1970s, when the Communicative Approach to language teaching took off (Brumfit & Johnson, 1979; Widdowson, 1978), most of the previously used methods and materials for teaching pronunciation at the segmental level were categorically rejected on theoretical and practical grounds as being inconsistent with teaching language as communication.	Widdowson 1978; Brumfit & Johnson 1979
Segmental/Supraseg mental debate: 1980s-1990s	Segmental features tend to receive more attention in ESL pronunciation classes, such as the presentation of minimal pairs, which makes it more difficult for students to recognise the linguistic significance of more general, high-level setting features (Esling & Wong, 1983). The priorities within the sound system will be directed to a more focused emphasis on stress, rhythm, intonation, etc. (suprasegmentals) and how they contribute to the meaning of discourse, as well as the importance of vowels and consonants (segmentals) (Morley, 1991).	Esling & Wong 1983; Morley 1991
Computer-assisted pronunciation training (CAPT): 1980s-1990s	As a motivator for students and instructors alike, computer-based visual display equipment has a solid subjective value, but in the teaching of pronunciation, such technology is perhaps most useful as a complement rather than a replacement for the interaction between teacher and student (Stenson, Downing, Smith, & Smith, 1992).	Stenson et al. 1992

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