

Pronunciation Instruction: A Review of Methods and Techniques

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Perception and production skills play a pivotal role in language use, language development and language learning. In the context of English language teaching (ELT), pronunciation is an integral aspect of communicative competence that can influence the desire to use the language as well as the quantity and quality of input received and output produced. This paper provides a review of recommended pronunciation teaching approaches and techniques that are otherwise dispersed throughout the literature. The range and variety of approaches and activities illustrate how pronunciation training can be incorporated into courses, whether content- or skills-based.

Perception and production skills play a pivotal role in language use (Derwing, 2003; Jenkins, 2000; Lippi-Green, 1997), language development (Ellis, 1996; Ellis, 2006; Baddeley, 1999; Levelt, 1989) and language learning (Celce-Murcia et al., 1996; Dalton and Seidlhofer, 1994; Fraser, 2002). In the context of English language teaching (ELT), pronunciation is an integral aspect of communicative competence (Morley, 1991) that can influence the desire to use the language (Guiora, 1972) as well as the quantity and quality of input received and output produced (Fraser, 2002). Yet, training in pronunciation skills (perceptive and productive) does not have a secure place in most language curriculums (Setter and Jenkins, 2005).

Within the current trend in ELT, it is up to individual teachers to incor-

porate pronunciation training into their lessons (Jenkins, 2002; Derwing & Munro, 2005). However, a lack of formal training combined with an absence of program directives means that it is up to teachers to inform and prepare themselves on how to best meet their students' needs (Breitkreutz et al. 2002; Fraser, 2002; Macdonald, 2002). Consequently, most teachers do not provide instruction at all and those few that do generally adopt a hit or miss approach, relying on materials that lack grounding and the desired results (Fraser, 2002). This situation is worsened by the fact that, even when included in coursebooks, pronunciation is marginalized and treated superficially (Marks, 2006; Silveira, 2002). Therefore, it is important to understand that students are not receiving the training they need in this important aspect of linguistic competence.

This paper provides a review of recommended pronunciation teaching approaches and techniques that are otherwise dispersed throughout the literature. The range and variety of approaches and activities illustrate how pronunciation training can be incorporated into courses, whether content- or skills-based. The underlying premise is that the goals of pronunciation instruction are, first, helping students acquire knowledge, awareness, and skills that will address intelligibility and comprehensibility while, second, promoting the use of effective communication strategies when engaging interlocutors from diverse backgrounds (Dauer, 2005; Jenkins, 2000; Kachru and Nelson, 1996). Furthermore, pronunciation instruction should be based on learners' needs, directed by an understanding of the purposes for which and the context in which the language is likely to be used.

While most of the literature on pronunciation instruction comes in the form of self-contained activities and techniques that can supplement instruction in other areas, there are also comprehensive approaches that focus on oral proficiency as a function of pronunciation skills. In the program

presented by Morley (1992), for example, pronunciation is viewed as a process of modifying pre-existing sound patterns toward increased speech intelligibility. Theories of speech production and comprehension support the idea that L2 production is dependent upon the learner's ability to establish corresponding categories in the brain (Best, 1995; Flege, 2003; Guenther, 2003; Kuhl, 2000; McAllister, 1999). It is posited that the phonological space must be segmented and restructured in order to accommodate novel input and the association of particular articulatory gestures with the production of L2 sounds and sequences of sounds.

Within Morley's (1992) program, training takes the form of controlled, rehearsed, and extemporaneous production activities that provide for the cognitive, psychological, and performative needs of adult learners. The method centers on the needs and capabilities of adult learners, addressing these in a manner that fosters intellectual stimulation as well as positive and active participation. The intention is to raise learner awareness and to create a learning environment in which learners establish their own goals and learn to monitor their performance, thereby becoming consciously aware of their progress.

The role of the teacher is to guide, monitor, support, and encourage learners to set and reach high standards. Learners progress from controlled production of selected features (individual segments → stress → rhythm → intonation) to rehearsed speech practice (oral readings and pre-planned talks). The studied features are put to communicative use in partially planned and unplanned talks, presentations, and discussions as well as in question and answer sessions. The final stage is when skills and knowledge become internalized as the learned patterns are integrated into spontaneous production (extemporaneous speech practice). Throughout training, learners record themselves and assess their production, focusing on particular

aspects consistent with each practice mode. Given the availability of audio software, recordings have become a viable means of providing practice, self-evaluation, and feedback (Aufderhaar, 2004; Celce-Murcia et al., 1996; Walker, 2005).

Fraser's (1999) Critical Listening approach also makes use of student recordings; their use is believed to be most suitable since it externalizes speech and provides a means of subsequent analysis and feedback. Critical Listening focuses on observation and analysis of interactions. This approach highlights the fact that there is a difference between what people think they are saying, what they actually produce, and how it is perceived by others. Therefore, prominence is placed on the instructor's insight into where the learners are coming from in order to lead them to new understanding (Fraser, 1999).

The instructor's job is to help the learner understand how listeners use speaker cues to interpret the message being communicated and the factors that lead to successful as well as unsuccessful exchanges. In her discussion, Fraser speaks of recordings of real-life interactions in which learners participate. These recordings are analyzed in the classroom where effective and ineffective strategies are identified and addressed with the assistance of the instructor and classmates. Fraser (2006) suggests that methods that work well "are based on the insight that pronunciation is a cognitive skill... [and] involves both 'knowing' things (subconsciously) about language, and being able to do things physically with the body" (p. 4). It is relevant to note that analysis of third party interactions and student group recordings can also serve as input for discussion and reflection.

Another approach is offered by Kjellin (1999). Accent Addition is a prosody-based method inspired by research in the fields of perception physiology and first language acquisition. Kjellin proposes that persistent

training in prosody perception combined with exercises that stimulate re-training of the speech articulators is a mode of acquisition similar to that of a first language but adapted for the adult's cognitive and physical assets and constraints. Fossilization is viewed in this framework as preventable, arising from lack of instruction rather than any kind of biological, affective, or psychological constraints.

Training follows a strictly ordered three-step process. The first step in the process involves learners singularly identifying target phonemes and phonological structures. This stage very much depends on the aid of the instructor, who points out the salient features and then provides multiple repetitions of a sample phrase in order to exemplify the realizations (and its intra-speaker variation) of the target feature. Next is the automatizing phase, which entails the learners producing multiple chorus repetitions of the sample phrase and receiving immediate feedback, encouragement, and reassurance from the instructor. It is suggested that this kind of drilling helps train the speech organs and allows the learner to discover the category boundaries that yield permissible phonetic variability in target language speech. The last step is that of transferring the newly acquired skills to novel utterances. Kjellin (1999) contends that it may take place instantaneously if learners are motivated and teachers are enthusiastic but is not specific in reference to instructional implementations. Of note, this kind of training lends itself well to the kind of lexical phrases that are often targets in commercial course books. It is feasible to consider spending part of the class engaging students in the first two stages as a way of reinforcing a chosen feature that is presented in the text.

Neufeld (1987) describes a delayed production approach to pronunciation training. In this case, learners are discouraged from vocalizing the L2 until appropriate acoustic imprints have been acquired. It is posited that inaccurate

imprints will result in pronunciation divergences while accurate imprints will yield target-like productions. Since the imprint of the pronunciation of a language (its acoustic image) is established through experience and exposure to the language, students are discouraged from producing too early as their speech can upset the imprinting process.

The proposed method involves attentive listening to short phrases (1–8 syllables in length) composed of frequently occurring lexical items, audio-visual presentation of common intonation contours and rhythmic patterns, and auditory discrimination of phonemic contrasts. Of note, this training regime was part of a controlled experiment designed to test the hypothesis “that adults retain the potential for acquiring native like proficiency in a new language” (Neufeld, 1987, p. 323). The 18-hour treatment (15 hours of non-productive training, followed by 3 hours of productive training) yielded strikingly positive results. Subjects were in fact able to achieve native-like production (as based on native-speaker judgments) through limited contact with the language.

Few teachers are in the position to dedicate a full course to pronunciation. Generally, if instruction is to be provided, it has to be worked into other courses in the form of activities and techniques that target particular features. A look through referential texts (e.g., Celce-Murcia et al., 1996; Dalton and Seidlhofer, 1994) indicates that teachers do well raising student awareness regarding the target sound system and how its various elements impact communication. In what follows, first, the suprasegmental features and then the segmental features that have been identified as impacting intelligibility are addressed (Catford, 1987; Cutler, 1984; Field, 2005; Gilbert, 2006; Jenkins, 2000; Kashiwagi et al., 2006; Munro and Derwing, 2006; Suenobu, 1992; Tench, 2001)

Tench (2005/6) explains that any monologue or dialogue can be used

to show how intonation “is relevant in all spoken language” (p. 51), supporting the observation with an overview of intonation in terms of its informational function (thought groups/intonation units, nuclear stress, prominence, contrastive pitch movements), its syntactic function (disambiguation of meaning), its textual function (organization of extended stretches of discourse, i.e. phonological paragraphs), and its genre-specific function (prosodic composition of different genres, news reports sound different than storytelling).

A selected text can serve as the basis for imitation, humming (kazoo), ear training, transformation, matching, discussion, noticing, prediction, recording, and self assessment activities which target the discourse functions of intonation (Tench 2005/6; Dalton and Seidlhofer, 1994). Aufderhaar (2004) conducted a study into discourse intonation-based pronunciation training. Findings showed that listening activities which exposed learners to intact and filtered samples (prosodic and phonemic information on separate tracks) of audio literature appeared to have a positive influence on production as measured by both subjective (raters’ judgments) and objective (vowel duration) means. Consequently, Aufderhaar recommends exposure to and analysis of authentic audio literature such as radio shows, interviews, and poetry readings.

Ramírez Verdugo (2005/6) suggests that combining a discourse intonation model and computer technology can make the “subconscious and elusive” (p. 29) nature of intonation easier to grasp. It is posited that comparison, analysis, and interpretation of pitch graphs of controlled and spontaneous speech provides concrete visual cues that highlight the role of intonation in speech. Chun (1987) also suggests that pitch graphs can support the recognition and production of intonation contours and prominent syllables, as long as both students and teachers have been trained in interpreting the

graphic display. Free recording and editing software applications such as Audacity (<http://audacity.sourceforge.net>) make it possible for interested practitioners to educate themselves on how or if this kind of training is appropriate for their circumstances.

Reading aloud is another means of targeting suprasegmental features by providing exposure and practice with stress placement, linking, and other phonological processes that naturally occur in speech and contribute to the overall rhythm of the language (Gabrielatos, 2002; Gibson, 2008; Wrembel, 2001). Potential benefits of using this technique include reinforcing sound-spelling associations, providing a means of oral proofreading, and encouraging autonomous learning as a task students engage in on their own (Gabrielatos, 2002). Selected scenes from popular movies or television shows are potentially engaging and entertaining material from which to base reading aloud as well as drama reenactment activities. Wrembel (2001) observes that the “emotional involvement and context provided by the dramatic situation foster communicative competence and lead to increased empathy and self-esteem” (p. 64) as well as increased expressiveness and fluency. This observation is supported by findings presented in Gibson (2008) which indicate that careful and sensitive implementation of reading aloud can have a positive influence on learning.

Making students aware of the role of lexical and sentential stress can be approached in a variety of ways (in addition to those just mentioned). Celce-Murcia et al. (1996) suggest that jokes and poetry can be used to model and practice appropriate stress placement. Similarly, attentive listening and discovery activities that encourage learners to deduce patterns from input are thought to be beneficial (Dalton and Seidlhofer, 1994). Attentive listening might involve audio cues paired with a reading in which the target feature is made visually obvious (e.g., via transcription, underlining,

highlighting, etc.) to the learner; alternatively, learners can be charged with identifying a particular feature based on a listening task. Discovery activities might involve the presentation of a collection of language samples that illustrate a certain feature and subsequent observation, hypothesizing, and discussion (pair, group, class) of the input. Chain-shifting drills, which illustrate how meaning changes depending on stress placement (Gilbert, 1993) as well as phrase expansion tasks can also be used to raise awareness. Phrase expansion tasks involve building up complete utterances from a limited number of words (Dalton and Seidlhofer, 1994) and a variation on this activity might have students explain the meaning of a haiku poem or expand it into a short story.

The identification and use of thought groups can be reinforced through audio and visual cues. Gilbert (2006) recommends listening discrimination activities and provides examples of exercises that make use of sentences (lexical and mathematical) in which pause placement alters interpretation. This kind of activity could easily be expanded to include productive practice by having students themselves provide the audio cues and further expanded by having the rest of the class transcribe what is heard rather than choose from written prompts (as originally suggested by Gilbert). Readings of short stories containing dialogues can also provide practice and exposure to the information function of thought grouping while at the same time raising awareness of genre-specific uses.

Beer (2005/6) provides an example of contextualized picture discrimination tasks designed to help students notice how thought groups can disambiguate meaning and, therefore, aid comprehension. Students listen to a story and choose the matching sequence of pictures. A variation of this activity can involve students creating their own picture sequences which can then serve as the basis for subsequent activities. This kind of activity lends

itself to both receptive and productive exposure and practice. Celce-Murcia et al. (1996) suggest that chants and speed delivery activities can serve as opportunities for practicing alternating stress within thought groups.

Cauldwell (www.speechinaction.com) presents a discourse-based approach to listening comprehension. Speech samples are presented through the use of tone units in order to facilitate awareness of how speakers use pitch, timing, and pause to organize their message and communicate meaning. Cauldwell (2002) explores misconceptions regarding timing in language and the inaccuracy of the stress- versus syllable-timed language distinction and proposes that timing is a tool which speakers modify depending on participants, context, and management techniques. It is proposed that learners will benefit from being made aware that speech rhythms result from “decisions made by speakers concerning the lexical choices and how to package them into tone-units” (p. 16).

There are many well-established techniques used to train students in segmental aspects of the sound system. The phonemic contrasts can be addressed through explicit instruction or contextualized within interaction (Celce-Murcia et al., 1996). Some learners may benefit from specific and direct instruction in the articulation of sounds and how L2 articulation differs from that of the L1 (Gilner and Morales, 2000). Cruz-Ferreira (2006) proposes that vocal tract self-awareness is necessary in order to produce vowels or consonants which have no visible cues while Jenner (1992) focuses on the role of articulatory settings in production.

There are also a range of less explicit activities that can be used. Using the vowel continuum, for example, is another way of making students aware of similarities and differences between the articulation of the L1 and L2 (Gilner and Morales, 2000). The influence of slight shifts in jaw, lips, and tongue can be demonstrated/ described/discovered/ felt by gliding from one

extreme of the oral cavity (high-front) to the other (high-back). Additionally, a schematic drawing of the vowel space can provide visual cues that pinpoint where in the continuum different vowels fall. Bilingual minimal pairs (orthographical similar forms) can also be used to raise awareness of the difference in articulation between two languages (Bowen and Marks, 1992). Minimal contrast sentence-answer pairs can be used to illustrate the communicative value of contrasts (Gilbert, 1993). Target segments can be reinforced through phonemic scrabble, which uses phonetic symbols rather than letters, as proposed in Taylor (1993). Hancock (2006) suggests that we not underestimate the potential of language play (alliteration, tongue twisters, jokes, witticisms). The idea is that long-established activities that target segmental discrimination can be made into meaningful, entertaining, and challenging material as well as practice opportunities.

Catford (1987, 2001) proposes that silent articulation and introspection can lead to an awareness of articulatory movements and gestures that might be obscured when attention is focused on processing the sound itself. Catford and Pisoni (1970) found that direct and explicit training in the articulation of novel sounds resulted in significantly better performance when compared to auditory training alone. Scores – on both receptive and productive discrimination tests – indicate that subjects who had received explanations regarding the articulation of L2 sounds and had engaged in silent practice outperformed those who had received ear-training and had done mimicry drills.

When it comes to consonant clusters, learners can benefit from seeing how clusters are realized in actual speech production. Listening discrimination tasks can provide a means of highlighting differences in interpretation due to presence/absence of grammatical morphemes (Gilbert, 2006). Dialogues that present contextualized use (and consequent modification) can help

students distinguish which kinds of simplification do and do not interfere with intelligibility. Celce-Murcia et al. (1996) also indicate that activities involving monthly schedules provide a means of practicing consonant clusters in ordinal numbers. Additionally, students can be encouraged to create word lists that illustrate a particular cluster and then to share their items with the class, either directly or indirectly, through short presentations.

Summing up, there exists a wide range of activities that target pronunciation skills. And, given how pronunciation impacts learning and language use, it is a competency that merits more attention than it currently receives. We must, however, recognize that effective instruction (in pronunciation as well as any other area) is directly related to a teacher's understanding of the subject matter and the student population. Students cannot receive proper and adequate pronunciation instruction unless teachers possess the expertise and knowhow which allows them to anticipate and recognize problem areas, identify and impart relevant information, and design and implement appropriate instruction; in other words, teachers need grounding in the phonetic/phonological systems of both the L1 and L2 as well as familiarity with teaching techniques (Brinton et al., 2005; Burgess and Spencer, 2000). Derwing and Munro (2005) observe that informed practice will only be possible once research findings are incorporated into teacher training materials and student texts. Until such is the case, it is left up to teachers to fill gaps found, not only, in the curriculum but also in their professional formation.

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