

TEACHING TIP

IMPROVING SPEAKER INTELLIGIBILITY: USING SITCOMS AND ENGAGING ACTIVITIES TO DEVELOP LEARNERS' PERCEPTION AND PRODUCTION OF WORD STRESS IN ENGLISH

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The Teaching Tip described in this paper is designed to help students improve their perception and production of word stress (lexical stress) through technology-enhanced materials. First, students become aware of word stress features through a mini video lecture. Next, they complete a perception activity. In this activity, they watch a short clip from *The Big Bang Theory* and complete a cloze exercise where they choose the word they hear with the correct stress from a dropdown menu (e.g., ex.PER.i.ment or ex.per.i.MENT). Finally, students complete a production activity in which they record themselves imitating the actors using *Audacity*. They record as many times as they wish until they are satisfied with their performance. Once they have finished, they upload their recording to the course site for feedback. The authors also provide suggestions for adapting the focus of the activity (e.g., final intonation patterns), the activity format (e.g., paper-based), and the text genre (e.g., a fable) for authentic listening materials to provide teachers with ideas on how to vary the activity and keep their students engaged and motivated to learn.

TEACHING TIP RATIONALE: THE INTELLIGIBILITY PRINCIPLE

The main goal of the activities presented in this paper is to help improve the intelligibility of adult intermediate learners through perception and production activities focusing on lexical stress (henceforth referred to as word stress) instead of producing native-like speech. Levis (2005) discusses the nativeness versus the intelligibility principles and explains that with the former, the aim is to speak like a native-speaker, whereas the latter focuses on being understood. Intelligibility is the “most fundamental characteristic of successful oral communication” (Derwing & Munro, 2015, p. 1). If an utterance is intelligible, it indicates that the listener can understand what the speaker is trying to convey (Derwing & Munro, 2015). Therefore, intelligibility, not the nativeness principle, should be the goal of pronunciation training.

BACKGROUND

1. The role of suprasegmentals to promote intelligibility

Researchers agree that English suprasegmentals, those features of the language that extend beyond individual sounds, are crucial to L2 speaker comprehensibility and intelligibility and should, therefore, be an integral part of pronunciation instruction (Celce-Murcia, Brinton, Goodwin, & Griner, 2010; Derwing & Munro, 2015). According to Celce-Murcia et al. (2010), errors related to suprasegmentals (i.e., word stress, rhythm, and intonation) may create greater, more serious misunderstandings than segmental (i.e., individual sounds) errors.

When learners understand how suprasegmentals can affect their speech and the meaning of what they say, they are more likely to understand the points of confusion that they produce in a conversation (Gilbert, 2008). When suprasegmental signals are clear, the listener can understand the speaker's message, even if there are errors in segmentals (Gilbert, 2012). Thus, proper control of rhythm, intonation, and word stress are critical for effective communication.

Rhythm is comprised of the combination of stressed and unstressed syllables along with pauses to create a regular, patterned beat in spoken English. When a speaker uses an incorrect rhythm pattern in English, native listeners may not understand what the speaker is trying to convey, or they may grow frustrated (Celce-Murcia et al., 2010). Gilbert (2012) argues that rhythm serves as a signal to help the listener understand the speaker, create emphasis, and identify relationships. Although these signals are not usually apparent to nonnative speakers, they are essential to native listeners; therefore, the improper use of rhythm may lead to conversational breakdowns between nonnative speakers and native listeners as well as between nonnative speakers from a variety of first language (L1) backgrounds.

Intonation, another suprasegmental that can greatly impact speaker intelligibility and comprehensibility, is described as the "rising and falling of the voice to various pitch levels during the articulation of an utterance" (Celce-Murcia et al., 2010, p. 231). When a speaker uses incorrect intonation patterns, miscommunication is likely to occur. For instance, based on their overuse of rising intonation, English learners may often sound uncertain about what they are trying to communicate. Speakers may also be considered "unfriendly or unengaged" because of an "overuse of falling tones accompanied by some level tones" (Pickering, 2018, p. 54). According to Reed (2013), intonation can also indicate turn taking in conversations. Hence, if improperly used, intonation may cause misunderstanding between interlocutors.

As with rhythm and intonation, word stress may also cause communication barriers. Stressed syllables are those syllables that are longer, louder, and higher in pitch; in other words, native speakers emphasize stressed syllables through length, volume, and pitch. Considering the listener's perspective, "the most salient features of stress are probably longer vowel duration in the stressed syllable and higher pitch" (Celce-Murcia et al., 2010, p. 184).

Native speakers also de-emphasize unstressed syllables by reducing the vowel of those syllables (Celce-Murcia et al., 2010). Word stress is so critical in English that "even if all the individual sounds are pronounced correctly, incorrect placement of stress can cause misunderstanding" (Celce-Murcia et al., 2010, p. 198). Levis (2018) argues that "misplaced word stress in English can stop communication completely" (p. 100), as listeners may stop processing information to try to figure out the word that they did not understand.

2. The role of perception training in pronunciation

Perception is an important skill that should be considered when teaching pronunciation. In fact, both perception and production are key to good communication (Dickerson, 2015). According to Levis (2018), "perception is at least equally important to production" (p. 241). He claims that "if an L2 speaker struggles with production, it is likely that their difficulties have roots in perception" (p. 241).

Flege, MacKay, and Meador (1999) found that accuracy of production (of segmentals) is connected to accurate perception of the features. Improvement in oral production has been noted after the completion of perceptual training (Derwing & Munro, 2015). Therefore, learners should receive instruction on perception and engage in perception practice activities before they complete production tasks. The raised awareness of learners in regard to perception ability can improve their production skills (Bradlow, Akahane-Yamada, Pisoni, & Tohkura, 1997; Kissling, 2014, Lambacher, Martens, Kakehi, Marasinghe, & Molholt, 2005).

Kissling (2014) noted that the ability to discriminate and perceive sounds from a native speaker of Spanish had a significant impact on the production of the target sounds. Although this study investigated the perception and production of segmental features, there have also been claims that the perception of suprasegmentals can affect production and cause communication issues (Cutler, 2015; Levis, 2018; Rivers, 1981).

Perception needs to be considered in regards to intelligibility, particularly with rhythm, as L2 learners need to not only be understood but also to be able to understand others' speech as well (Levis, 2018; Rivers, 1981). According to Cutler (2015), both the perception and the production of word stress in English can create issues in communication, either directly or indirectly. Consequently, it is critical to teach both production and perception skills when focusing on pronunciation.

3. Technology (CALL) and pronunciation training

As previously mentioned, the activities discussed in this teaching tip include technology-implemented materials and authentic listening texts to keep students engaged and motivated to learn. According to Barger and Byrd (2011), the employment of computers and technology motivates students since they often enjoy using computers for non-academic purposes; Keller and Litchfield (2002, as cited in Barger & Byrd, 2011) explain that motivation occurs at three different levels: motivation to learn, motivation to work, and self-motivation.

Instruction of suprasegmentals through technology has the potential to lead to improved intelligibility; a study by Lima (2015a) showed that participants improved their pronunciation after computer-assisted instruction on word stress, rhythm, and intonation. Several of Lima's (2015a) activities made use of sitcom clips, which provide authentic input and the possibility of more engaging and motivating pronunciation practice for students (Lima & Levis, 2017). Activities including these types of clips allow teachers to use drama and imitation techniques, as they "offer discourse-level practice with stress, intonation, and connected speech" (Goodwin, 2013, p. 7).

Imitation of native speakers "suggests an effect for rehearsal and reflection," which indicates a possible "connection between the phonological loop function and actual phonological learning" (Moyer, 2014, pp. 429-430). In other words, the phonological loop function is related to humans' working memory and "allows the listener to hold and rehearse sound sequences in short-term memory during speech processing, and to direct attention and promote subvocal articulation that feeds into long-term memory" (Moyer, 2014, p. 428).

It is noteworthy that the tasks described in this paper are part of the Supra Tutor, an eight-week fully online pronunciation course designed to help students improve their use of English suprasegmentals and, in turn, their intelligibility. Also, given that the teaching tips presented at the Pronunciation in Second Language Learning and Teaching (PSLLT) conference are brief due to the nature of the presentation, word stress activities were chosen for the demonstration. However, in the last section of this paper, the authors provide suggestions for adaptations of target features (e.g., intonation patterns).

Before completing the word stress perception and production exercises, students are made aware of the features of word stress through a mini video lecture. The lecture (see Task 1 below) includes the characteristics of word stress, provides information on word stress from both speaker and listener perspectives, and shows visual representation of word stress using *Audacity*. Next, they complete a cloze exercise to practice their perception of word stress, followed by an imitation activity for production practice.

Goals of the Teaching Tip

1. To raise awareness of word stress and why it is critical to successful communication.
2. To understand the features of word stress from both speaker and listener perspectives.
3. To develop self-monitoring skills for pronunciation improvement.

HOW TO CONDUCT THE ACTIVITY

Task 1: Video lecture

The first task in this activity prompts students to watch a mini video lecture. Since the course is online, students may watch the video as many times as they wish. However, if implementing this activity in a face-to-face environment, the authors suggest playing the video at least twice. This mini video lecture allows students to become aware of the features of word stress and why it is critical for successful communication. For instance, the lecture seen in Figure 1 describes the characteristics of word stress, discusses word stress from the perspectives of both speaker and listener, and shows visual representations of word stress using *Audacity*.

The mini video lecture can either be created by the instructor, as is the case of the Supra Tutor, or be found online. In either case, it is important to keep content accuracy and length in mind. Short videos (maximum of 15 minutes) are preferable in order to keep students engaged and attentive while watching the lecture.



Figure 1. Word stress lecture used for Task 1.

Task 2: Perception activity

After students have learned about the features of word stress, they complete a perception activity (Figure 2). In this activity, they watch a short clip from *The Big Bang Theory* (Football Questions). They may watch the clip as many times as they wish. The students then complete a cloze exercise where they choose, from a dropdown menu (e.g., FOOT.ball or foot.BALL), the word that they hear with the correct primary stress. The stressed syllable is represented by capital letters, and periods show syllabification, or the division of words into syllables.



Watch the Big Bang Theory clip (Football Questions) again. Complete the following activity by **choosing the correct stress placement** for the selected words in the dropdown menu. Stressed syllables are represented by capital letters (e.g., THE.o.ry).

The Big Bang Theory: Football (Transcript)

[A football game is playing on the TV in the background.]

Howard: You're watching ?

Leonard: There's no fooling you. [Audience laughs.] Now what is this sack put up there? [Leonard picks up a book about football.]

Howard: All I know about Saks is my shops there.

[Audience laughs.]

Leonard: [Looks in the back of the book.] Sacks... Sacks...

Sheldon: It's football for when a quarterback is tackled behind the line of scrimmage.

Figure 2. Online word stress perception activity used for Task 2.

While selecting the words for this specific activity, the authors chose content words containing between two and four syllables, given that the content words are naturally emphasized by native speakers. Since the students complete the activity online, it allows for automatic immediate feedback. The system will let students know if the answer they selected is correct or incorrect; if their choice is incorrect, the system will show what the correct answer is.

Although this activity is part of a fully online course, this task can easily be adapted to a paper version. Instead of choosing from a drop-down menu, the students can circle or underline the options showing correct word stress placement. The words from which the students must select may be in bold so that they are easily identifiable. For feedback, the students can either turn in their worksheets to the teacher, or the teacher can go over the correct answers with the class as a whole. A sample paper-based version of the activity is provided below.

The Big Bang Theory: Football (Transcript)

[A football game is playing on the TV in the background.]

Howard: You're watching (**FOOT.ball** / **foot.BALL**)?

Leonard: There's no fooling you. [Audience laughs.] Now what is this sacks (**STA.tis.tic** / **sta.TIS.tic** / **sta.tis.TIC**) they put up there? [Leonard picks up a book about football.]

Howard: All I know about Saks is my (**MOTH.er** / **moth.ER**) shops there.

[Audience laughs.]

Leonard: [Looks in the back of the book.] Sacks... Sacks...

Sheldon: It's football (**no.MEN.cla.ture** / **no.men.CLA.ture** / **no.men.cla.TURE**) for when a quarterback is tackled behind the line of scrimmage.

Leonard: Huh. [Looks in book again.] Scrimmage.

Sheldon: The line of scrimmage is the (**IMAG.i.nary** / **imag.I.nary** / **imag.i.NARY**) transverse line separating the (**OF.fense** / **of.FENSE**) from the defense.

Leonard: Oh.

Howard: Sheldon knows football?

Leonard: (**AP.par.ent.ly** / **ap.PAR.ent.ly** / **ap.par.ENT.ly**).

Howard: I mean (**QUIDD.itch** / **quidd.ITCH**), sure, but football?!

Task 3: Production activity

In this last step, students complete a production activity (Figure 3) where they record themselves in *Audacity*, imitating the actors. For this, a segmented audio file is created and provided to the students. By the time this activity is conducted, students will have already learned how to download and use *Audacity* to record and edit their own audio files. In the case of the online course, mini tutorial videos show students, step-by-step, how to download, install, and use *Audacity*. The audio-clips are segmented into shorter utterances so that the students can easily record themselves right after the actors or, in this case, after the models. Students record themselves as many times as they wish and then listen to themselves for self-monitoring. Once they are satisfied with their performance, the students save the audio file as one single track and upload it to the course website. To learn how to segment audio files using *Audacity*, see Lima (2015b).

The Big Bang Theory Football Questions: Production Activity

Now that you are familiar with *Audacity* and know how to use it to record yourself, let's do a **word stress** production exercise. Do you remember the Big Bang Theory: Football Questions? Well, now you will have the chance to practice some of the dialogue (transcript below). Download the attached file and open it in *Audacity*. Listen to the recording and say each line after you hear it. Once you record the lines and are satisfied with your performance, upload your file here.

Figure 3. Word stress production activity (Task 3).

Alternatively, instructors can require students to monitor their own progress on the task and submit a short oral (or written) reflection on how they think they did, discussing both their strengths and weaknesses. This will allow for additional spoken practice. In the case that this activity is being

performed in class, there are multiple ways in which it can be adapted. For instance, students can repeat after the actors as a group or individually. Additionally, they can role-play the scene in pairs or in groups of three. Considering that self-monitoring is critical to pronunciation improvement (Morley, 1991), students could also record themselves on their cell phones for self-monitoring. The instructor can provide a brief rubric containing key features of word stress to help students focus their self-analyses. Additionally, students could record themselves on computers or on their cell phones and exchange recordings with each other and provide peer feedback using the provided rubric.

ADAPTATIONS OF THE ACTIVITY

The activities described in this teaching tip include technology-enhanced materials (e.g., video lectures and short sitcom clips) to engage and motivate students to learn and to practice. A *Big Bang Theory* clip was chosen for the activities demonstrated here, but any other appealing sitcom can be used (e.g., *Friends*, *Seinfeld*, *Last Man Standing*, *New Girl*, and so on). It is important that instructors choose shows that are appealing to the learners even if they, the instructors, are not very fond of a particular show. The point is to have students interested in the task so that they do not feel discouraged, bored, or unwilling to practice.

Before discussing adaptation options, the authors suggest including a scaffolding activity focusing on accuracy in stress placement at word level first. For instance, the instructor can present the students with a recorded list of words, and the students have to identify (e.g., circle or underline) the syllable that receives the primary stress. Once students master identifying the stressed syllable (perception) and producing it accurately in production tasks, they can move on to phrases and then sentence-level activities such as the one presented in Task 3.

For text variety, the same exercise can be created using short stories or fables (e.g., The boy who cried wolf). Teachers can either use an existing video (e.g., <https://bit.ly/1UNnUtH>) or record their own versions of the fable. Sometimes the existing recordings are geared towards children, which older learners may find unsuitable or even irritating. Therefore, teachers may find it more appropriate to record their own versions. Fables are also good for teaching thought groups, for example. The students can have the script in front of them and mark the thought groups with slashes (e.g., Once upon a time/ there was a boy/ who had to look after sheep. //) as they hear the story.

As mentioned previously, the activities described above were designed with adult intermediate learners in mind. However, the materials can easily be adapted for a different audience. Depending on the level of proficiency, changes may be needed. For instance, with lower levels, instructors can use shorter clips or texts that are easier for learners to process and understand.

While the demonstrated activities focus on word stress, they can be adapted to focus on other suprasegmental features, such as prominence or intonation patterns. Sitcom clips, cloze exercises, and imitation activities can still be the backbone of the activity; what will change is the focus of the mini-lecture and of both perception and production tasks. For instance, the same clip (*The Big Bang Theory*, Football Questions) can be used for final intonation patterns practice. After watching a mini-lecture video on intonation, students can complete a cloze exercise that prompts them to

choose the correct final intonation pattern (either rising or falling). Alternatively, students could be asked to draw arrows next to each utterance according to the final intonation pattern that they hear. For production, the same segmented audio file can be used, but this time learners will focus on imitating the actors in their use of final intonation patterns.

With authentic or semi-authentic texts, the options for perception and production pronunciation practice are limitless. From specific segmentals (e.g., /s/ as in ‘Sue’ versus /ʃ/ as in ‘shoe’ or /æ/ as in ‘bat’ versus /ɛ/ as in ‘bet’) to intonational discourse, instructors can create fun and engaging activities that focus on any given feature, and students can enjoy pronunciation practice that goes far beyond the traditional pronunciation drills.

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