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Pronunciation in Second Language Learning and Teaching

ABSTRACT BOOK

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ORAL PRESENTATIONS

FRIDAY, SEPTEMBER 13

Pronunciation of German L2 Danish Learners: Evidence-based L1 Effects and Ratings in Accentedness, Comprehensibility and Acceptability
Oral Session I / Room 1 - 10:30 a.m. – 10:55 a.m.
Lisa Tulaja, University of Kiel, Germany

Due to geographical and historical reasons Danish is taught as a foreign language in schools in Northern Germany. Teaching Danish pronunciation, however, faces two major obstacles: First, Danish has a highly complex sound system (Grønnum 2009) that proves hard to acquire. Second, Ll speakers exhibit a relatively low degree of tolerance for variation as compared to the standard variety (Kristiansen 2009). In order to communicate successfully in Ll conversations a relatively high competence in pronunciation is needed. Yet, this area for Danish as an L2 for German learners so far is widely unexplored.
Firstly, this PhD project aimed to gain evidence based insight into, which effects of the Ll on L2 pronunciation are typical for German L2 Danish learners. For this purpose, 91 learners were recorded and their pronunciation was evaluated after phenomena which from a contrastive perspective are assumed to be difficult for the specific learner group.

As a second step the project aimed to discover how the investigated phonetic errors affect communication in the target language Danish with native speakers. Twenty-three stimuli were presented to 192 Danish Ll raters in a perception study. In line with Thomson's (2018) proposal, the errors were not only tested for accentedness and comprehensibility (Munro & Derwing 1995; Derwing & Munro 2015) but also for acceptability (Chang Li-Ann 2008; Pilott 2016; Settinieri 2011). The results show that errors are rated differently. While almost all errors achieved high values in accentedness, their ratings varied in the two other dimensions. The presentation focuses on the design and results of the study and will discuss recommendations for the curriculum and teaching Danish as a foreign language for German
L2 learners. Possible implications for other language pairs can be drawn.

Activating Productive Oral Vocabulary by Focusing on Speech Rhythm
Oral Session I / Room 2 - 10:30 a.m. – 10:55 a.m.
Bianca Mister-Colmenares, University of Wollongong

This presentation aims to provide insight into how a pronunciation teaching technique focusing on sentence stress can be used to create engaging classroom events in order to prompt activation of productive vocabulary in speech. The pronunciation technique used in this study employs gesture to raise awareness of English stress patterns and provide a mechanism for students to practice productive output of target vocabulary in contextual sentences. Although using gesture in vocabulary teaching is not a new concept (Macedonia, 2014; Bergmann & Macedonia, 2013; Macedonia & Klimesch, 2014; Burri, Baker & Acton, 2016; Morett, 2014) and neither is research into how contextualization of words assists learning (Teng, 2016; Elgort et al, 2018; Bao, 2015; Schneider, Healy & Bourne, 2002), what this study argues is that the amalgamation of these notions can be a powerful tool to develop productive oral vocabulary knowledge.

This study tested a classroom workshop designed to develop productive oral vocabulary and followed a learning cycle consisting of four stages of development: 1) Conceptualization; 2) Develop internal network; 3) Proceduralise output; and 4) Focus on productive use. This talk will present findings related to the third stage of development and how the Haptic Rhythmic Fight Club (HRFC) technique was used to proceduralise output of target vocabulary. Key findings will reveal reasons why HRFC is effective in activating productive oral vocabulary and how the physical nature of this method reduces learner emotion and anxiety normally associated with speaking so that learning can be maximized (Burri, Baker, & Acton, 2016). The presentation will conclude with two final design principles that can be used to guide educators in teaching accurate speech rhythm for the purpose of activating productive oral vocabulary.

Preservice Teachers' Beliefs about L2 Pronunciation Teaching, Their Experience, and Speech Assessments
Oral Session I / Room 3 - 10:30 a.m. – 10:55 a.m.
Aki Tsunemoto, Concordia University
Pavel Trofimovich, Concordia University
Sara Kennedy, Concordia University

Teacher cognition plays a significant role in second language (L2) learning because it affects classroom practice, including teaching and assessment (Borg, 2003), and learners' input greatly relies on what teachers provide. In the field of pronunciation teaching and learning, previous research has shown several links between teachers' experience (e.g., teacher training, language learning, or teaching experience) and their beliefs about pronunciation instruction (e.g., Nagle et al., 2018; Uchida & Sugimoto, 2019). Yet, researchers have often failed to find strong relationships between teachers' pedagogic beliefs and their classroom practices (Foote et al., 2012; Huensch, 2019), and there has been no research focusing on potential links between teacher beliefs and their assessments of L2 learners' pronunciation. Therefore, the current study aimed to examine how preservice teachers' experience and beliefs about English pronunciation instruction are related to their assessments of learners' L2 speech.

Fifty Japanese preservice teachers of English participated in an online questionnaire using LimeSurvey. The questionnaire examined teachers' (a) beliefs about teaching and learning of English pronunciation; (b) experience in teacher training; (c) preparedness for teaching pronunciation and (d) experience in language learning and teaching. In addition, 30-second audio clips of 40 Japanese secondary school students performing an extemporaneous speech task were presented to the teachers to assess comprehensibility, accentedness, and perceived fluency using 1000-point sliding scales. Finally, individual semi-structured interviews with five participants who answered the questionnaire were conducted to probe their rationales behind their speech assessments and any relevant questionnaire answers about their beliefs or experience. The quantitative data are currently undergoing analysis using an exploratory factor analysis to extract factors so that correlational analyses could then explore potential relationships between preservice teachers' experience, beliefs, and their speech ratings. Findings will address how the nature of preservice teachers' experience and beliefs informs their assessment of L2 speech.

Understanding Accent and Identity on the Border: Bilinguals' Perceptions and Language-Learning Goals
Oral Session I / Room 4 - 10:30 a.m. – 10:55 a.m.
Shannon McCrocklin, Southern Illinois University

Although pronunciation teachers/researchers have embraced goals of intelligibility over nativeness (Kanellou, 2011; Levis, 2005), studies have repeatedly found that most learners desire nativeness (Derwing, 2003; Timmis, 2018). However, language learners desiring a native accent often failed to perceive a link between L2 accent and identity (McCrocklin & Link, 2016). Bilingual experiences may increase understanding of relationships between language and identity (Ellis, 2006). This mixed-methods study examined how bilinguals along the US-Mexico border understand the relationship between accent and identity and how this perspective affects current language-learning goals. Participants (n=60) provided information about their language-learning background, ranked agreement with 19 Likert-scale statements (analyzed with Wilcoxon Signed-ranks), and answered three open-ended questions about accent, identity, and pronunciation learning on a survey. Thirteen participants chose to follow-up with a semi-structured interview featuring 12 questions about language learning, accent, and identity. Survey results showed participants self-reported sounding native in both Spanish and English. Participants reported that it was important to be easily understood in both languages (similar levels of agreement), but held a greater desire to sound native in Spanish (p=.01). Further, their desire to sound native in English, Spanish, and a new language was greater than their belief that a person generally should wish to sound native (all p values <.001). Qualitative analyses showed that although participants (97%) recognized relationships between accent and identity, the majority (72%) still preferred a native accent for increasing intelligibility (44%), as a marker of L2 mastery (25%), or as a strategy to fit into the new culture (23%), suggesting perception of links between accent and identity may not strongly influence language-learning goals. A desire for nativeness is persistent. For the minority, comments indicated they recognized they could not be native speakers (40%), saw non-native accents as a cultural display (33%), and distinguished accentedness and intelligibility (26%).

Crowdsourcing L2 Phonetics
Oral Session I / Room 5 - 10:30 a.m. – 10:55 a.m.
Steven Weinberger, George Mason University
Stephen Kunath, Georgetown University
Jill Nelson, George Mason University
Zhiyan Gao, George Mason University

Phonetic transcription is a crucial component for phonetic analysis, and phonetic analysis is prerequisite for pronunciation teaching. But training humans to produce accurate transcriptions is time consuming and labor intensive. This is especially the case since most accurate and reliable transcribed renditions of human speech result from a process of consensus from multiple trained human transcribers, and the more human listeners, the better. We report on a project to crowdsource this process. Primarily, we sought a method to deal with the transcription backlog in an online corpus of more than 2,800 accented English speech samples. Crowdsourcing for phonetic transcription has not been attempted and we set out to investigate such a procedure. Research questions consisted of three issues: 1) does crowdsourcing work for narrow transcription? 2) does transcriber phonetic ability matter? 3) does transcriber native language matter? The task was simple: listen to some L2 speech, then transcribe it. Each sample was taken from the speech accent archive. The crowd included students from around the world. We catalogued 358 qualified submissions. There were 97 transcribers who submitted multiple transcriptions. Self-reported transcription proficiency varied: 24 advanced, 35 intermediate, and 38 beginners. Transcribers were from 21 different language backgrounds. Because the archive contains vetted transcriptions of hundreds of speech samples, we used these as temporary "gold standards" to test the accuracy of the crowd. Indeed, 1) the crowdsourced transcriptions matched the gold standard at a rate of 70%. Mixed-effects logistic regression was employed on the rest of the data, and results indicate that 2) there is a tendency that phonetic ability does matter, and 3) native language background does not significantly matter. We demonstrate that crowdsourced phonetic transcription is possible. We also report on the implications for diagnostic studies of second language speech, and the efficacy of training human transcribers.

The relationship between listener attitudes and the comprehension of nonnative-accented speech
Oral Session I / Room 1 – 11:00 a.m. – 11:25 a.m.

Julia Vonessen, University of Utah
Rachel Hayes-Harb, University of Utah

The traditional view that the responsibility for the intelligibility of nonnative speech rests solely with the nonnative speaker is challenged by studies demonstrating the contribution of listener factors to nonnative speech intelligibility; these factors include the listener's language background (Hayes-Harb, Smith, Bradlow & Bent, 2008); exposure to nonnative speech (Clarke & Garrett, 2004), and experience with a particular nonnative accent (Kennedy & Trofimovich, 2008). In addition, native speakers often exhibit negative attitudes toward nonnative speakers (Gluszek & Dovidio, 2010), and Ingvalson, Lansford, Federova & Fernandez (2017) revealed that such attitudes may be associated with a reduced ability to comprehend nonnative speech. Ingvalson et al. demonstrated that native English speakers with more negative attitudes toward specific nonnative talkers exhibited a reduced ability to understand those talkers. However, their study involved only one talker for each native language, conflating talker and native language. We conducted an adaptation of Ingvalson et al.'s work, including eight talkers for each of three native languages (Korean, Mandarin, and Spanish).

Native English speakers (n=109) participated in attitude judgment and sentence transcription tasks. Each participant heard a speech sample from half of the 24 nonnative talkers (3 native languages * 8 talkers/language) and rated the speech for ten talker and speech characteristics, and then transcribed 60 sentences produced by the same talkers (5 sentences/talker). The talker and speech ratings were highly correlated and were combined into a single attitude score. We observed no correlation between attitude and intelligibility scores; however, there was a ceiling effect on sentence transcription accuracy (>90%). To induce errors, we have embedded the sentence materials in 6-talker babble (Van Engen & Bradlow, 2007) and a follow-up study is currently underway. We will discuss differences in attitudes toward the three native language groups, as well as individual attitude and intelligibility differences among listeners and talkers.

Pronunciation Instruction: A Longitudinal Study in French
Oral Session I / Room 2 – 11:00 a.m. – 11:25 a.m.
Jessica Sturm, Purdue University

Sturm (2019) found that learners in French classes with "traditional" or non-systematic pronunciation instruction demonstrated inconsistent learning: syllables pronounced correctly at one recording, then mispronounced later. This paper considers the development of students in the first four semesters of French language study at a large Midwestern university who studied pronunciation using iCPRs (Cued Pronunciation Readings, Martin, 2015). iCPRS were assigned weekly as homework. Students recorded themselves reading a prepared text at the beginning and end of each semester, providing a longitudinal database that allows for the analysis of pronunciation development over the course of the beginning and intermediate sequence. Analyses focus a global measure of pronunciation accuracy: number of correct syllables, including item analyses of which syllables are correct at which stage of learning. Results will be compared to Sturm's (2019) results as a measure of the effects of systematic pronunciation instruction.

Developing a Blended EAP Pronunciation Course: Issues of Implementation and Ethics
Oral Session I / Room 2 - 11:00 a.m. – 11:25 a.m.
Jennifer Foote, University of Alberta
Ron Thomson, Brock University

Pronunciation is increasingly seen as a vital part of language learning, rather than as something that can be added in ad hoc if instructors have the time and interest (Levis, 2018). With this shift in perspective, there has been an increase in materials designed to help both in the teaching of pronunciation and the development curricula/materials (e.g., Derwing & Munro, 2015; Grant, 2014; Murphy, 2017). While this is all an excellent sign for the progress of pronunciation in second language instruction, it also means that instructors and programs which have not traditionally focused on pronunciation are now in a position of trying to increase their capacity in this area. This creates questions around challenges for ensuring that pronunciation instruction is provided in a sound and ethical way when being increased or added to curricula, without creating an unreasonable burden on instructors who may lack training in this area.

This paper reports on the development of a series of blended pronunciation modules added to the highest level English for academic purposes (EAP) classes at a Canadian university. These modules consisted of a number of online videos and assignments to be completed at home, which were all created by a pronunciation expert, followed by a weekly one-hour in-class component led by EAP instructors with various levels of expertise in pronunciation. The development and implementation of these modules is discuss in relation to the ethical guidelines presented at PSLLT 2018 (Thomson & Foote, 2018) using data gathered from instructors using the modules, students who completed them, and the module developer. Findings indicate that the blended model offers an opportunity to provide ethical pronunciation instruction to learners, provided adequate professional development and consultation is included for instructors.

Exploring Teachers' Metalinguistic Knowledge of the English Intonation System
Oral Session I / Room 3 - 11:00 a.m. – 11:25 a.m.

Alison McGregor, Princeton University
Beth Zielinski, Macquarie University
Colleen Meyers, University of Minnesota
Di Liu, Boston University
Marnie Reed, Boston University

Although teachers and teacher trainers recognize the importance of intonation to effective communication in English, many "approach this area of language development with a sense of unease, if at all" (Pickering, 2018, p. 1). Levis (2018) argues that many teachers find intonation to be "one of the most elusive features of pronunciation" (p. 151) making it difficult for them to describe and teach. However, despite the recent increased focus on teacher cognition of pronunciation, there is a lack of research demonstrating teachers' actual metalinguistic knowledge of the English intonation system.

Through a focus on intonation terminology, this qualitative study explored the knowledge-base of intonation as represented in texts and teachers' metalinguistic knowledge of intonation as demonstrated in semi-structured interviews. First, intonation terminology representing the content knowledge of the systems of intonation was systematically audited and categorized from three sources: theoretical (British and American) traditions/approaches, teacher training resources, and student texts. Second, six ESL teachers' metalinguistic knowledge of English intonation was explored using interview questions and during the completion of three intonation-related tasks involving teaching, assessing, and term familiarity. Based on the categories emerging from terminology in texts, researchers coded teachers' use of intonation metalanguage found in the interview and task completion transcripts. Next coding and analysis focused on the aspects of knowledge on intonation demonstrated. Finally, the researchers conducted individual case studies and comparisons to examine the emerging themes of metalinguistic knowledge in relation to instructional practices.

The presentation will focus on how knowledge of intonation functions to inform (or misinform) the understanding of intonation and ensuing instructional practices. After sharing individual case study comparisons, a framework will be introduced showing the interrelationship between terminology and metalinguistic knowledge. The pedagogical implications of the framework for teacher training will also be discussed.

How Movie Dubbing Can Facilitate Taiwanese Speakers' English Pronunciation
Oral Session I / Room 4 - 11:00 a.m. – 11:25 a.m.

Hsin-Yi Huang, Language Center, Southern Taiwan University of Science and Technology
Chiung-Jung Tseng, Language Center, Southern Taiwan University of Science and Technology

English films are the most authentic language teaching materials which can serve as the major model and rich input for students especially in pronunciation teaching. To avoid communication problems, non-native speakers of English have to pass a threshold level of pronunciation. If they fail to do so, they cannot communicate effectively even if they have excellent and extensive command of English grammar and vocabulary. It is argued that the goal of providing pronunciation instruction is not to enable students to pronounce English words perfectly but to make them more intelligible, communicative, and confident when they speak English for various purposes.

Current trend of the emphasis on pronunciation teaching has moved from the teaching of segmental levels such as individual sounds to the teaching of suprasegmental features like stress and intonation. The film dubbing approach provides a unique opportunity for the imitation of English pronunciation and intonation within a contextualized scenario. Through listening to the model pronunciation of the characters and practicing dubbing the voices of the muted characters in the films, learners can move from imitating the individual sounds to the stress and intonation of longer expressions. This study seeks to investigate, firstly, if film-dubbing can enhance EFL students' motivation for learning English and increase their awareness of English stress and intonation; secondly, to what extent film dubbing can promote the acquisition of EFL students' pronunciation in the aspects of word stress, sentence stress, intonation, intelligibility and comprehensibility.

The participants were 38 college students with different majors from an intact elective course, Fun of Dubbing English Films. The data were collected from each participant's individual monologue-dubbing task, students' responses to the questionnaire and the semi-structured interviews. The participants performed the individual monologue dubbing task twice and one served as the pre-test, while the other as the post-test. The grading rubric for the monologue-dubbing task consisted of seven aspects of English pronunciation: (a) intelligibility; (b) comprehensibility; (c) accentedness; (d) use of pauses within thought groups; (e) places of word stress correctly; (f) places of sentence stress correctly; (g) and the correct use of intonation. Specific samples for the grading rubric, questionnaire and interview questions will be included in our presentation at the conference.

Shedding Light on Dark /l/: A Case Study on Teaching English /l/ and /ɹ/
Oral Session I / Room 5 - 11:00 a.m. – 11:25 a.m.
Brian Rocca, Indiana University, Bloomington
Shaye Smith, Indiana University, Bloomington
Alex Williams, Indiana University, Bloomington

Teaching allophones is not a common practice in pronunciation instruction and many pedagogical materials lack information on phonetic variants; however, the allophone of /l/ in coda position (also known as "dark /l/" [ɫ]) may be important for the English /l/-/ɹ/ contrast. In our case study, we provided instruction focused on /l/ and /ɹ/ for one Korean learner of English. We designed and implemented five 60-minute training sessions over six weeks following the Communicative Framework. An elicited repetition and a read-aloud task were recorded for pre- and post-tests; the post-test included both pre-test items and generalization items to test for learning transfer. Two naïve L1 English speakers provided intelligibility scores for production accuracy. At post-test, the learner's production accuracy of /ɹ/ increased in all syllable environments in both tasks. Relevant to the focus of our presentation, production accuracy of /l/ increased only in the syllable onset position in the read-aloud task; unexpectedly, production accuracy of [ɫ] decreased by 27% in the elicited repetition task. Intelligibility transcriptions indicate [ɹ] was produced instead of [ɫ].

Explicit perception training on [ɫ]-[ɹ] would have been beneficial if the observed production error was due to misperception. One training session focused on /l/-/ɹ/ in coda position, but [ɫ] was not explicitly taught because we believed that the allophone had implications for comprehensibility, but not intelligibility or perception. While further investigation is warranted, learners of English may need perception training and explicit instruction on [ɫ] and teachers need access to materials that teach the contrast explicitly. Additionally, more research needs to be done on learners from various language backgrounds to find what the implications of this contrast are for intelligibility and listening comprehension. This presentation will provide a detailed overview of our teaching and assessment approach and will discuss best practices for teaching this contrast explicitly.

The Roles of Second Language Pronunciation Instruction and Individual Differences in the Acquisition of French Grammatical Gender
Oral Session I / Room 1 – 11:30 a.m. – 11:55 a.m.
Andrew Lee, Brock University

Lyster (2004) found that learners of French as a second language (L2) benefit from form-focused instruction (FFI) targeting morphological awareness of noun endings (i.e., sublexical cues) in the acquisition of French grammatical gender. A noteworthy finding is that L2 learners developed an interlanguage strategy of pronouncing French articles in an ambiguous manner as hybrid forms between un and une and between le and la. Thus, the present study hypothesizes that, FFI targeting pronunciation of the sounds as well as sublexical cues should be implemented in classroom instruction. Drawing on previous studies (e.g., Darcy, Mora, & Daidone, 2016), the current study also hypothesizes that L2 learners' executive function (EF) skills mediate their ability to benefit from FFI.

To examine the hypotheses, a quasi-experimental study was conducted in six intact French L2 classrooms ($N =$ 140). Each classroom received FFI on only sublexical cues, FFI on both sublexical cues and pronunciation, or control condition for six 80-minute instructional sessions (two classrooms per condition). A pretest, an immediate posttest, and a delayed posttest were administrated, each of which included grammatical judgment, text-completion, read-aloud, and picture-description tasks. The Simon Test and the Corsi Block-Tapping Test were also conducted at the time of post-testing.

Results revealed that students receiving FFI on both sublexical cues and pronunciation showed significantly higher scores in all tasks after the FFI sessions. In contrast, those receiving FFI on only sublexical cues showed significant improvement in the grammatical judgment and text-completion tasks, but not in the read-aloud and picture-description tasks. Students in the control condition made no significant improvement on any measures. Inhibitory control and working memory skills were significant EF skills in L2 acquisition. This presentation will highlight the roles of L2 pronunciation instruction and EF skills in the acquisition of French grammatical gender.

A Pronunciation Researcher and a Corpus Linguist Walk into a Bar
Oral Session I / Room 2 - 11:30 a.m. – 11:55 a.m.

Bethany Gray, Iowa State University
John Levis, Iowa State University

Research on second language (L2) pronunciation has expanded greatly in the past 15 years, and one consistent suggestion for better research on accentedness, fluency, intelligibility and comprehensibility has been the development of publicly available spoken corpora, including those that are phonetically and prosodically annotated according to agreed-on criteria, preferably collected from multiple sites (e.g., O'Brien, Derwing, et al., 2018). One of the challenges with this recommendation is that pronunciation researchers struggle to define the purposes that an L2 pronunciation corpus should serve. A second challenge is fitting these purposes to the principles of corpus design, especially the standards and practices that are desirable in corpus-based research. This presentation considers the L2 pronunciation/L2 corpus interface from two perspectives: from the view of a pronunciation researcher regarding ideal datasets and desirable goals that a pronunciation corpus could serve; and from the view of a corpus researcher on the principles guiding corpus design decisions. Specifically, we consider issues that impact the usefulness of a pronunciation corpus for both pronunciation and corpus researchers, such as (1) the nature of language production collected, including issues of authenticity; (2) corpus size and representativeness, and the need to balance corpus size with the demands of (3) types of corpus annotation (including segmental and prosodic tagging) and storage formats.

The two researchers discuss where the corpus-based and the L2 pronunciation approaches align and where they do not (such as in the use of read-aloud speech), and offer suggestions for how the development of pronunciation corpora can be aligned with principles guiding the design of other types of corpora, while also enabling data to be collected and annotated in a manner that enables principled investigations of L2 pronunciation.

A Discourse-Intonation Corpus of Teaching Assistant Speech: Preliminary Results
Oral Session I / Room 3 - 11:30 a.m. – 11:55 a.m.
Idée Edalatishams, Iowa State University

Research on non-native English speakers' pronunciation has generally revealed non-standard patterns of segmental and suprasegmental features (Anderson-Hsieh, Johnson, & Koehler, 1992; Kang, 2010) that could result in lower comprehensibility (Field, 2005; Hahn, 2004; Kang, Rubin, & Pickering, 2010). These findings have come from analyzing small datasets, but larger spoken corpora have rarely been incorporated into the study of non-native speakers' pronunciation. To date, there is no corpus of instructional speech that can answer questions pertaining to discourse intonation of native and non-native speech. As a cohesive device, intonation plays an important role in signaling the structure of information in discourse and, in the context of classroom speech, can assist instructors in producing comprehensible speech (Haan, 2015; Pickering, 1999; Wennerstrom, 1997).
In this presentation, I report on the ongoing development of a corpus of teaching assistant
(TA) classroom speech by native-English-speaking American TAs (ATAs) and international TAs
(ITAs). The corpus involves a class session (e.g., lecture, problem solving, lab, and studio) from 3 ATAs and 13 ITAs at this point. Prosodic annotation of audio files in PRAAT includes orthographic transcription aligned at the word and phone level, tone unit, and tone choice using Brazil's (1997) discourse intonation framework.
I will report on the preliminary results related to the impact of ATAs' and ITAs' tone choice on the cohesion of their discourse. These findings will be discussed in light of the differences between ATAs and ITAs in their choice of proclaiming, referring, and level tones. I will discuss additional pronunciation features to be included in this spoken corpus of TA speech. My plan is for this corpus to become available to researchers in the field and to enable research on a variety of pronunciation and discourse related issues of interest to the community.

Exploring the Impact of On-line Blogging in an EAP Pronunciation Class
Oral Session I / Room 4 - 11:30 a.m. – 11:55 a.m.
Christa Schuller, Renison University College
Maggie Heeney, University of Waterloo

Within learning management systems, blogging has become an innovative tool giving learners opportunities to interact and negotiate meaning while producing language. Blogging follows the constructivist approach of underlining learner interaction (Kern, 2006). Meaning is constructed in a non-intrusive environment with scaffolding through peer intervention (Vygotsky, 1978). This action research examines the effectiveness of on-line blogging in university pronunciation classes and explores student perceptions of whether blogging helped improve their pronunciation. The participants were from EAP undergraduate pronunciation classes (N=17; N=12 and N=9) of four hours a week for 12 weeks. Each student underwent a diagnostic pretest to assess pronunciation difficulties and set goals. Students recorded and uploaded three blogging tasks on specific pronunciation points. For each task, students listened to the recordings of 2 – 3 peers and provided written pronunciation feedback. Then, students re-recorded themselves based on the feedback. Instructors neither intervened nor commented during the blogging tasks other than posting an example of how to comment constructively. At term end, students were given a questionnaire, and reflected upon their perceived progress and the usefulness of giving and receiving peer feedback. This questionnaire was brought to an exit interview, at which time students also completed a post-test. Student perceptions of improved pronunciation through blogging were favourable, as they felt motivated learning from others' strengths and weaknesses. Many commented on the experience of teaching others. This sense of motivation concurs with Shih's study (2010) where blended teaching - classroom and online blogging - is a useful instructional strategy encouraging learning. Implications include providing additional practice, raising pronunciation cognitive awareness, encouraging autonomous learning, and building self-confidence. Post-tests indicate that significant pronunciation progress can be limited with only one term of instruction and three blogging tasks. Nonetheless, blogging is a motivating pedagogical tool transforming pronunciation tasks into being learner-centered.

Ultrasound Imaging in the Foreign Language Classroom: Challenges, Outcomes, and Students' Perceptions
Oral Session I / Room 5 - 11:30 a.m. – 11:55 a.m.

Solene Inceoglu, Australian National University
Ksenia Gnevsheva, Australian National University

Recent years have witnessed an increase in the use of ultrasound imaging as a technology to provide visual biofeedback in L2 speech training. Although showing promising effects, most of the past studies have been conducted in laboratory settings on small group of learners (Bliss, Abel, and Gick, 2018), and little is known about the use of ultrasound technology in real classroom settings.

This pilot study explored the benefits and students' perception of using ultrasound biofeedback to teach French L2 vowel contrasts. The data was collected from 31 learners enrolled in two intact French pronunciation classes at a large Australian university. During two lessons, the instructor used the ultrasound on herself to highlight and model the internal articulatory processes to produce either [y]/[u] or [e]/[ɛ]. Each learner then received ultrasound visual feedback on their articulation of the vowels while practicing a list of #CV# words in facilitating and difficult consonantal contexts. All learners received the same instruction, completed oral assessment tasks (word list and reading passage) before and after the ultrasound activities, and reported their impressions in reflective journals. Group 1 was first trained on the [y]-[u] contrast while Group 2 first received feedback on the [e]-[ɛ] contrast.

F1 and F2 mid-point measurements of [y] and [u] were extracted from target words. Mixed-effects modeling showed that Group 1 improved in the pronunciation of the [y] vowel (word list) between tasks 1 and 2, but Group 2 did not although they had exhibited a significantly fronter [y] vowel than Group 1 in general. Ultrasound practice did not immediately transfer to improvement in production in the reading passage. The findings also highlighted learners' overwhelming positive perceptions and attitudes towards their experience. These results will be discussed in light of previous literature and pedagogical implications will be suggested.

The Effect of Feedback on L2 Japanese Pronunciation
Oral Session I / Room 1 – 12:00 p.m. – 12:25 p.m.
Chisato Kojima, University of Utah
Tomoko Okuno, University of Michigan

In L2 Japanese classrooms, pronunciation has historically been given less attention than syntax and orthography because errors in beginner- and intermediate-level L2 Japanese are assumed to lead only rarely to severe intelligibility loss. This is partially because teachers are accustomed to L2 speech, and overall expression tends to be limited to basic structures. However, overlooking pronunciation poorly prepares learners for advanced study when their range of expression increases and becomes less predictable while simultaneously becoming more likely to interact with native interlocutors unfamiliar with accented speech.

Okuno (2018) examined the effectiveness of L2 Japanese pronunciation instruction in intensive Japanese language courses, showing improvements in fluency and comprehensibility, but only mixed results for accentedness. The current study aims to replicate Okuno's research in 15-week university-level courses focusing on the effectiveness of feedback given during instruction. A total of 26 learners participated in this study by listening to audio files and practicing the pronunciation of words, short phrases, and dialogues outside class in a series of five 10 – 15 minute sessions. All students recorded a short narrative at the beginning and end of the study as a pre- and post-test. Fourteen students received individualized feedback after every session throughout the study, while the remaining 12 students received holistic feedback only after completing the post-test.

Twenty native Japanese listeners rated the participants' pronunciation in the pre- and post-test conditions for comprehensibility and foreign accentedness. They rated accuracy of specific segments (e.g. flaps, geminates) and intonation patterns (e.g. interrogative). In addition, the native listeners transcribed pre- and post-test samples for intelligibility. Preliminary analysis indicates significant improvement on accurate production of both segmentals and suprasegmentals for the group that received feedback. Implications for the importance of feedback in order to enhancing comprehensibility and intelligibility while reducing foreign accentedness will be discussed.

The Effectiveness of Digital Tools in the Analysis of Spoken Discourse: Towards a Protocol for Pronunciation Corpora
Oral Session I / Room 2 - 12:00 p.m. – 12:25 p.m.

Romy Ghanem, University of Memphis
Idee Edalatishams, Iowa State University
Amanda Huensch, University of South Florida
Karin Puga, Justus Liebig University Giessen
Shelle Staples, University of Arizona

The analysis of spoken language has always had to address two main issues: the tedious method of extracting variables and researchers' potential subjectivity when analyzing the data. The use of digital tools/software programs such as ELAN or the Montreal Forced Aligner (MFA) afford partial automatization of processes and the potential for increased objectivity. With the growing number of spoken corpora, research has called for a more systematic compilation of large representative spoken corpora (Allwood et al., 2002; Cermak, 2009). Researchers now have access to a wide variety of digital tools for easier and more accurate descriptions of spoken data and their features. While these tools have improved analysis processes, some programs are more suitable for certain aspects of analysis than others. With the interest of the PSLLT community in pursuing a multilingual corpus, this presentation provides an overview of four digital tools that have been recently employed in the analysis of spoken data: ELAN, MFA, Phon, and Praat. Illustrations and examples from the four tools are demonstrated using a 30-second dialogic L2 English speech file. The aim is to offer a brief but practical introduction to the usefulness of each program in relation to: transcribing audio files and extracting segmental (e.g., vowel length), prosodic (e.g., pitch range), and fluency (e.g., pause length) features. Interactions among the tools and the transfer of data from one program into another are also discussed. The presentation concludes with a protocol handout for each program detailing step-by-step procedures starting from its installation to descriptions of the various analyses. By systematically documenting the strengths/weaknesses of each tool in the analysis of spoken data and their interoperability, this presentation acts as a first step towards developing a protocol for building, annotating, and using pronunciation corpora.

Relationship between Rater's Language Aptitude and Their Judgments of Second Language Speech
Oral Session I / Room 3 - 12:00 p.m. – 12:25 p.m.

Jimin Kahng, University of Mississippi

Although rater judgments are frequently used as a main source of evidence of language proficiency, such judgments may not always be reliable or valid. Rater's judgments might reflect not only test takers' performance, but also individual differences among raters (e.g., Isaacs & Trofimovich, 2011). However, the influence of individual differences of raters on ratings has been under-explored in the field. The current research project aims to investigate effects of individual differences on rater judgments of second language speech focusing on raters' language aptitude.

Naive English listeners rated 74 spontaneous native and nonnative speech samples for accentedness, comprehensibility, and fluency. They were also assessed for language aptitude using four sections of the LLAMA language aptitude tests--vocabulary learning, phonetic memory, sound-symbol correspondence, and grammatical inferencing. The results showed that raters' high phonetic memory scores were associated with more strict accentedness ratings. On the other hand, raters' high vocabulary learning and grammatical inferencing scores were associated with more lenient comprehensibility ratings. Fluency ratings were not associated with any of the aptitude scores. The findings suggest that raters' different areas of language aptitude be associated with their assessment of different aspects of second language speech. Implications for pronunciation assessment and teaching will be discussed.

Technology-enhanced L2 listening: Triangulating perception, production, and metalinguistic awareness
Oral Session I / Room 4 - 12:00 p.m. – 12:25 p.m.
Marnie Reed, Boston University
Di Liu, Boston University

L2 listening poses challenges to learners and teachers alike. Learner challenges include parsing continuous speech and identifying speaker intent (Vandergrift & Goh, 2012). Instructor challenges include teaching, not testing, processing of aural input.

Listening instruction that promotes production training of problematic sounds to facilitate second language perception (Linebaugh & Roche, 2015) supports a focus suggested by Casserly and Pisoni (2010) on shaping a speaker's own speech production to activate auditory feedback. We explore extending the benefits of speech production training in informing and facilitating speech perception to connected speech processes (CSPs) and suprasegmental features.

Learners' misattribution of their inability to recognize known words in continuous speech to the speed of speech may be ameliorated by metalinguistic awareness of co-articulated divergence from citation form coupled with technology-enhanced practice. Learners' resistance to adopting English prosody (Gilbert, 2014), save for imitation for mocking purposes, may be ameliorated by metalinguistic awareness of pragmatic and discourse functions of intonation plus practice of requisite pitch changes. A framework centered on mutual intelligibility and triangulating speech perception, production, and metalinguistic awareness is proposed.

Based on research findings supporting the effectiveness of technologies such as high variability input (Thomson, 2012) and speech visualization (Levis & Pickering, 2004), technological tools including English Accent Coach, POSE-test, YouGlish and Praat are recommended to facilitate learner awareness-raising and teaching of segmental, suprasegmental, and connected speech features.

Recommended teaching activities target CSPs such as linked and contracted words relevant to both broad [IzibIzi] and field-specific "the judge'll make a ruling" contexts, using authentic materials at YouGlish.com. Steps to enhance noticing, locating, and interpreting contrastive and implicational pitch contours that signal speaker intent are illustrated by visualizing the pitch movement of the same sentences with different stressed constituents using the software Praat. We share the potential of technology-enhanced instruction to improve L2 listening skills.

The Effects of Extra Input on L2 Spanish Phonetic Development of /p, t/
Oral Session I / Room 5 - 12:00 p.m. – 12:25 p.m.
Carlos Andrés Rojas

This study explores out-of-class auditory input and the development of L2 Spanish phonetic features associated with degree of aspiration in the production of the phonemes /p, t, k/, acoustically captured in differences of VOT values (Spanish presents shorter values than English, corresponding with a lack of aspiration).

The experiment was piloted during Fall-2018 N=7 (focus of this abstract) and is being replicated with a larger group N=15 (Spring-2019). Participants were L1-English/L2-Spanish learners registered in an intermediate-level course. Four formed the experimental and three the control group.
Participants produced speech in Spanish, repeating two tasks in two sessions, five weeks apart: a sentence reading (fifteen sentences) and a narration task (based on a silent film). For five weeks, the experimental group listened daily to an hour of online news broadcasts from Spain or Colombia. Moreover, they completed weekly reports in English via a Google form in which they self-rated/reported their overall L2 comprehension.

Pre- and post-treatment /p, t/ tokens across tasks were acoustically examined to measure VOT in Praat (lack of tokens prevented including /k/). Preliminary results suggest a possible effect of extra input for five weeks; that is, the VOT-values of two experimental group participants changed in the pre- and post- data sets related to the reading task, which comparable values from the control group remained stable between sessions.
Conversely, values did not change in the narration-task in either group, suggesting that L2 phonological development may benefit from regular listening, but that when testing for effects, the cognitive effort demanded by tasks is crucial to consider (e.g., reading vs. recall + unscripted production).

Pronunciation Teaching Techniques: Tongue Twisters vs. Authentic Sentences
Oral Session II / Room 1 – 2:00 p.m. – 2:25 p.m.
Mikko Kuronen
Elina Tergujeff

L2 pronunciation and related issues are gaining increased interest among applied linguists, but classroom-based research is still rare. Studies on the usefulness of different pronunciation teaching techniques would be particularly welcome. (Derwing & Munro 2015: 25.) Techniques are various, and many of them have been in use for decades without empirical evidence of their effects on learning. In this presentation, we are going to take a closer look at one of the "classics" – namely, tongue twisters.

Tongue twisters such as *she sells seashells on the seashore* are usually read repeatedly with an ever-increasing tempo until articulatory collapse, making inevitable failure a key characteristic of the technique (Somoff 2014). Tongue twisters seem to be popular in some teaching contexts, but the technique has also been criticised. Derwing & Munro (2015: 106) do not recommend tongue twisters, as they may cause extreme frustration for learners. Similarly, Nation & Newton (2009: 82) are strongly against using the technique, calling it a "cruel and unusual punishment" for learners. Most importantly, the criticism includes that there is no evidence of tongue twisters facilitating L2 pronunciation learning any better than practising with regular sentences.

In this study, two groups of advanced learners of Swedish (n=28) practised two challenging phonemes in a three-week teaching experiment. One group trained with tongue twisters, whereas the other used authentic sentences. Both groups took a pretest and a posttest, based on which their development was analysed. In addition, the tongue-twister group's opinions of the technique were mapped with a questionnaire. Results reveal how well the participants were able to improve in the target sounds, and how the results obtained with the two techniques compare to each other. In addition, we will discuss how learners felt about training with tongue twisters.

The Development of an Online English Speaking Consultant Training Program: Lessons Learned
Oral Session II / Room 2 - 2:00 p.m. – 2:25 p.m.

Liberato Silva dos Santos, Iowa State University
Timothy Kochem, Iowa State University
Kristin Terrill, Iowa State University
Lily Compton, Iowa State University
Monica Richards, Iowa State University
Elena Cotos, Iowa State University

English-medium universities in the U.S. and other countries have long been concerned with improving the speaking and pronunciation skills of their international students to enhance learning in classroom-, laboratory-, and research-related activities (Stevens, 1989; Saif, 2006). A specific concern relates to training support staff who can address these students' speaking and pronunciation development needs in an individualized manner that complements what is typically offered in ESL courses. To address that concern, a team of faculty and teaching assistants at a large US Midwestern university developed and implemented a seven-week asynchronous online program to train English Speaking Consultants (ESCs) using sound pedagogical and technological resources so that they can help international graduate students develop their English speaking and pronunciation skills. The goal of the program was to prepare ESCs who can conduct needs analysis and diagnostic, determine learning priorities, negotiate learning goals, and provide targeted instruction and learning assessment to provide international graduate students with customized assistance for their specific speaking needs. In the pilot training program, three doctoral students from the university's applied linguistics and technology program received training through five modules that focus on how to teach listening, speaking, pragmatics, lexicogrammar, and pronunciation. To become certified consultants, the trainees first participated in theoretical discussions and practice activities covering resources such as speaking and pronunciation websites and apps, online corpora, coursebooks, and educational platforms. They also responded to different scenarios based on the instructional materials. After the seven-week training, they had to complete a practicum that included three co-consultations with mentor(s) and three supervised consultations followed by a final summative assessment. This presentation will discuss the development of the instructional modules and their evolution over the first iteration of the course. It will also provide guidelines for developing similar professional development courses in universities and other educational institutions.

Listener Response Time in Comprehensibility, Accentedness, and Fluency Judgments
Oral Session II / Room 3 - 2:00 p.m. – 2:25 p.m.
Katherine Yaw, Northern Arizona University

Studies in listener perception of speech often rely on listener-reported ratings of comprehensibility, accentedness, and/or fluency to understand how listeners experience different types of speech (e.g., Derwing & Munro, 1997; Derwing, Rossiter, Munro, & Thomson, 2004). Response time methods in such studies can expand this understanding to include inferences about the listeners' underlying cognitive and decision-making processes (Jiang, 2012). This empirical study investigated listener response time trends, along with the relationship between response time and perception ratings of speech, and the predictive role of speaker proficiency in both response time and perception ratings. Participants were 15 L2 English speakers who recorded a picture description task. 45 untrained listeners then rated each speaker on comprehensibility, accentedness, and fluency while their response time was measured using the psycholinguistic software Paradigm. Response time was operationalized as the time from the start of the 30-second audio file until the listener indicated a rating; listeners were allowed to make their ratings as soon as they felt ready and did not have to listen to the entire audio file. Analyses of the response time patterns showed comprehensibility ratings took roughly twice as long as accentedness and fluency, although response time and perception ratings did not display clear correlations. Mixed-effects modeling revealed significant effects of speaker proficiency on response time and perception ratings, though the random effect of listener explained most of the variance in the response time models. Results support the consideration of response time in similar speech studies, as well as future investigation of listener characteristics that contribute to response time.

Connected Speech: An Evolving Understanding
Oral Session II / Room 4 - 2:00 p.m. – 2:25 p.m.
Wayne Dickerson, University of Illinois at Urbana-Champaign

The rhythmic structure of everyday spoken English phrases has slowly come into focus over the last three-quarters of a century: Most phrases have one or two prominent pitch accents, often with unaccented syllables before and after them (Pickering 2018:35). Although also slow, progress is being made on understanding the communicative role of these parts of a phrase. For instance, Halliday (1967) describes the function of the nucleus (tonic) as identifying information the speaker considers new or contrastive. But what role, if any, do unaccented strings play in this structure?

This paper focuses on one of these strings, the one between pitch accents when there are two. The striking feature of this string is the number of compression devices found there. It seems to be a given that ESL instruction should include some treatment of these devices. But what is the justification for doing so? Why do we compress speech? Is it because that is just the way we say phrases? Is it to make syllables easier to pronounce? Is it to make our speech sound more natural and friendly? Is it to keep pitch accents coming at regular intervals? Does it have to do with holding the floor to avoid interruptions? Or does it meet some deeper need of speakers or listeners?

The intent of this paper is to trace the thinking of language teachers and researchers about this word string over the last 75 years in order to understand where we are in answering these key questions: What are relaxed speech devices really doing in speech? The better we understand their role in communication, the better we can determine whether or not they warrant attention in an already crowded ESL pronunciation curriculum. If we should teach them, should we focus only on students' perception skill or on their perception and production skills?

Initial Alveolar Nasal and Lateral Production of Southwestern Mandarin Speakers
Oral Session II / Room 5 - 2:00 p.m. – 2:25 p.m.
John Levis, Iowa State University
Wei Zhang, Qufu Normal University

Southwestern Mandarin is one of the most important modern Chinese dialects, with over 250 million speakers (Li, 2004). Unlike most Mandarin varieties, it lacks a phonemic distinction between /n/ and /l/. The confusion, when transferred into learning English, risks loss of intelligibility because of the high functional load of /l/-/n/ in English (Munro & Derwing, 2006).

This study is a phonetic investigation of the merger of initial [n] and [l] in English and Standard Mandarin by speakers of Southwestern Mandarin. It examines the production abilities of Southwestern Mandarin speakers in producing the distinction between initial [n] and [l] in Standard Mandarin and English. Twenty-five Southwestern Mandarin speakers recorded 68 English words with word initial [n]-[l], 29 word-medial [n]-[l] combinations, and 400 Chinese words with initial [l] and [n], and 40 Chinese two-word phrases where [l] or [n] was in the second word. All tokens were coded for accuracy by the researchers.

The Chinese data show that the /n/ was substituted for /l/ more than /l/ for /n/; speakers were more accurate in production preceding high vowels. Tone did not have any consistent effects on distinction between [n] and [l]. The English data show that the production of initial [l] and [n] was more complicated than in Chinese. /n/ was not only substituted by /l/, but also by /ɹ/ and /m/; /l/ was substituted by /n/ and /ɹ/.

These results indicate that dialect can have a strong effect on the production of sounds in related languages (Standard Chinese), and in unrelated languages (English). The data also suggest that transfer of the native dialect into English may include unexpected productions. Pedagogically, these results suggest dialect be considered for Chinese learners of English, and that pronunciation instruction for Southwestern Mandarin speakers focus on perception and production for initial [l] and [n].

Is giving better than receiving? The effects of peer and teacher corrective feedback on L2 perception skills
Oral Session II / Room 1 – 2:30 p.m. – 2:55 p.m.

Ines A. Martin, U.S. Naval Academy
Liese Sippel, Yale University

While there is increasing evidence for the effectiveness of pronunciation instruction (Lee et al., 2015), fewer studies have examined the relationship between corrective feedback and pronunciation development. Particularly the role of peer feedback as a modality of pronunciation training has not received much attention. Focusing on word stress placement in German-English cognates, the present study therefore investigated the effects of different types of feedback on learners' L2 perception skills.

Eighty-five first-year learners of German from three US universities were assigned to 1) a peer feedback provider group (N = 24), 2) a peer feedback receiver group (N = 20), 3) a teacher feedback receiver group (N = 18), or 4) a control group (N = 23). During an instructional intervention over three weeks, groups 1-3 received different modalities of pronunciation training. That is, after a general training on word stress, group 1 listened to recordings from students in group 2 and provided guided peer feedback on their pronunciation. Students in group 2 subsequently used this feedback to revise their recordings. Students in group 3 received teacher feedback and also revised their recordings. Students in group 4 received neither pronunciation instruction nor feedback.

Results from a perception pre- and post- test revealed that both the peer feedback provider group and the teacher feedback receiver group improved significantly from pretest to posttest in terms of their ability to determine word stress placement in German-English cognates. In contrast, neither the peer feedback receiver group nor the control group improved from pretest to posttest. Interestingly, these results not only add to the existing body of research providing evidence for the effectiveness of teacher feedback in pronunciation instruction but also suggest that although peer feedback in general is useful, the benefits might stem from providing feedback rather than from receiving it (cf. Lundstrom & Baker, 2009).

The Correlation between Formulaic Sequences and Temporal Measures of Oral Fluency
Oral Session II / Room 2 - 2:30 p.m. – 2:55 p.m.
Payam Rahmati, Oklahoma State University

The use of formulaic sequences has been associated with a processing advantage, either in reading (Arnon & Cohen, 2013; Conklin & Schmitt, 2008; 2012) or in oral fluency (Guz, 2014; Mcguire, & Larson-Hall, 2017; Quan, 2018). However, the extent to which different types of formulaic sequences including phrasal verbs, collocations, idioms, multi-word discourse markers play a role in enhancing different measures of oral fluency is not well explored. The purpose of this study is to examine the relationship between different types of formulaic sequences used by second language speakers of English and temporal measures of fluency.
In this study, speech rate, mean length of runs, and phonation time ratio, which have been correlated with the use of formulaic sequences by native speakers (Wood, 2014), will be examined in relation to different types of formulaic sequences. Regarding the identification and quantification of different types of formulaic sequences, only collocations, phrasal verbs, idioms, and multiword discourse markers are taken into account in this study. However, there are some formulaic sequences which cannot be subsumed under any of these categories and therefore are not considered in this study.

Speech samples of 20 upper-intermediate Persian speaking learners of English in the U.S. will be elicited using a monologic personalizing task used in Guz (2014). The speech samples will then be transcribed and analyzed for the three temporal measures of fluency mentioned above using PRAAT.
Results will show the extent to which each type of formulaic sequences associates to different measures of temporal fluency. The findings will have pedagogical implications by informing educators of the contribution of different types of formulaic sequences in enhancing oral fluency of second language speakers.

Non-Native Learner's Speech Perception of International Teaching Assistants in North American Universities
Oral Session II / Room 3 - 2:30 p.m. – 2:55 p.m.
Sondoss Elnegahy, Iowa State University

Reverse linguistic stereotyping (RLS) is a process in which listeners' perceptions are shaped depending on social stereotypes (Rubin, 1992; Kang & Rubin, 2009). Previous RLS studies have mostly focused on native English speakers' perceptions of non-native speakers (NNSs) generally or International Teaching Assistants (ITAs) specifically. Thus, this study investigates the relationship between visual cues and NNS' perceptions of ITAs' accentedness and comprehensibility.

A matched guise procedure was adapted from McGowan (2015) in which 30 participants from Chinese L1 and Arabic L1. Participants were assigned to one of three guises: Hijab (a Muslim headscarf as a symbol of religious beliefs), No Hijab, and a Silhouette. After hearing a lecture in Arabic accented English, participants rated the accentedness and comprehensibility of the ITA using a 9-point scale (Derwing & Munro, 1998). For insight into the reasons for rating decisions, a semi-structured interview was conducted.

NNSs' perceptions of ITA's accentedness were negatively influenced by visual cues in Hijab group as compared to the No Hijab group. The Silhouette group had the most positive accentedness rating. On the other hand, results showed that no matter what level of accentedness was perceived or whichever L1 background participants belonged to, participants in all groups generally found the ITA's speech to be easily understood. More interestingly, Arabic L1 participants who rated accentedness the strongest, also rated the comprehensibility of the ITA as 'very easy to understand'. In conclusion, the study's findings may further explain how invisible social factors and a shared L1 can influence how international students perceive the speech of ITAs and affect their judgments on the ITAs professional capabilities.

English Prosody of Advanced Learners of English - A Contrastive Interlanguage Analysis
Oral Session II / Room 4 - 2:30 p.m. – 2:55 p.m.
Karin Puga, Justus Liebig University Giessen, Germany

This paper reports on a study on L2 learners' intonational deviances in spontaneous monologic and dialogic speech, in which the frequencies of intonational phrases, tones/tunes, and f0 range are investigated. The interlanguages based on the Czech, German, and Spanish components of the Louvain International Database of Spoken English Interlanguage (Gilquin et al. 2010) are compared to English native speech with prosodically annotated versions of the British English Louvain Corpus of Native English Conversation (cf. De Cock 2004), and the American English New South Voices (cf. Atkins 2017) corpus. The manual annotation of the five corpora was performed with the Tone and Break Indices (ToBI) (Silverman et al. 1992) system. The corpus used for this study consists of 225 annotated files, which contain comparable spontaneous speech (only statements) on similar topics, produced in an interview situation with the same length of speech samples. The prosodic information was extracted with Praat (Boersma & Weenink 2016) and significance tests were conducted with R-scripts (R Development Core Team 2019). The analyses reveal that German ($p<0.001$) and Spanish ($p=0.0234$) learners are predicted to break their utterances into more intonation phrases (IPs) than native-speakers, while the Czech learners are predicted to break their utterances into fewer IPs ($p=0.0421$). The Spanish learners exhibit a higher frequency of tones, which is positively correlated with their higher IP frequency. The H* L- L% tune was the most frequent across all five sub-corpora. However, high edge tones (H-, H%) are used more frequently by non-native speakers (all $p<0.001$, except H% in Spanish learners $p=0.0209$). Generally, differences in f0 range between male and female speakers are larger than differences between native- and non-native speech. In order to better explain these results, a multifactorial regression analysis of learning context variables was performed, i.e. speaking style, age, gender, stays abroad, pragmatic functions (continuation, listing, etc.), and speech acts (statements vs. answers).

The Effects of High Talker Variability on the Perceptual Learning of Mandarin Tones in HVPT
Oral Session II / Room 5 - 2:30 p.m. – 2:55 p.m
Alif Silpachai, Iowa State University

High Variability Phonetic Training (HVPT) has been found to be effective in enhancing nonnative listeners' perception of not only segments, but also tones. Segmental studies have suggested that a key component of HVPT is high talker variability. However, the extent to which this component helps with tone perception is unclear. The current study investigated the effects of high talker variability, compared to low talker variability, on the learning of four Mandarin tones occurring in monosyllabic words by English-speaking listeners. Two training paradigms were compared with each other. One paradigm used stimuli produced by multiple talkers (multitalker group), whereas the other paradigm used stimuli produced by one talker (single-talker group). The results showed that the multitalker group overall showed more learning after training and better retention of their learning for six months compared to the single-talker group. However, neither group showed learning of Tone 1 or generalization of their learning to disyllabic words. The results suggest that although high talker variability is important for improving nontonal listeners' perception of tones, it does not enhance the perception of more tones or yield generalization of learning to more novel contexts compared to low talker variability.

Comparison of One-Way and Two-Way Immersion Education for English-Japanese Bilinguals' Pronunciation Skills
Oral Session II / Room 1 – 3:00 p.m. – 3:25 p.m.

Tetsuo Harada, Waseda University
Asako Hayashi-Takakura, UCLA

Several recent studies focus on the acquisition of pronunciation in one-way immersion programs (e.g., Menke, 2015; Netelenbos, Li, & Rosen, 2016) and report that learners' productions are different from those of native speaking peers, but very few studies compare one-way immersion (OWI) and two-way immersion (TWI) education for bilingual children's pronunciation skills. OWI is a dual language program in which children learn both language and content in a foreign language, whereas TWI, with the same instructional goals, allows a balanced number of students from each target language group to be enrolled in the same classroom. This study compares the production of voice onset time (VOT) by English Japanese bilingual children in OWI and TWI programs in the US. Both fifteen children from OWI and twenty-five students from TWI, who were all learning Japanese as a foreign language, participated in a sentence reading task designed for eliciting both English and Japanese words beginning with three voiceless stops /p, t, k/. Baseline data were also collected from 23 Japanese-dominant English bilinguals in TWI and 10 Japanese monolingual children in Japan. The VOT of initial stops was measured from the beginning of the release burst to the onset of voicing energy in F2 formants. Results showed that although the production of VOT by both groups of the English-speaking children was significantly different from that of the monolinguals, the English-speaking children in TWI produced shorter or more Japanese-like VOT than the counterparts in OWI, and reached the phonetic norm of the Japanese-speaking peers in the TWI program. The findings suggest that TWI, with sufficient input from both the teacher and peers, is more beneficial for the development of pronunciation skills than OWI, and the comparison of bilinguals with monolinguals is not an appropriate way in bilingual studies (Cook, 2003; Ortega, 2009).

The Role of Written Input in the Acquisition of a German-like Pattern of Final Devoicing by Native English Speakers: Evidence from a Listening Task
Oral Session II / Room 2 - 3:00 p.m. – 3:25 p.m.
Shannon Barrios, University of Utah
Cailey Lloyd, University of Utah
Rachel Hayes-Harb, University of Utah

In German, underlyingly voiced obstruents are devoiced in final position (e.g., /rad/ 'wheel' and /rat/ 'advice', spelled <rad> and <rat>, are both pronounced ~[rat]). Hayes-Harb, Brown, & Smith (2018) demonstrated that written forms can interfere with native English speakers' acquisition of target-like pronunciation of underlyingly voiced final obstruents (e.g., <d> in <rad> causes learners to say *[rad] instead of [rat]). Barrios & Hayes-Harb (submitted) further demonstrated that exposure to both unsuffixed and suffixed forms affects acquisition of the final devoicing process, reporting an "orthographic input trade-off": Participants exposed to written forms inappropriately produced more underlyingly voiced words as voiced when unsuffixed, but appropriately produced these words as voiced when suffixed, than did participants not exposed to written forms. Using a listening rather than production task, we investigate the robustness of these findings, as well as the generalizability of the learned pattern to new words.

We taught native English speakers a set of unsuffixed and suffixed German-like nonwords with and without alternating surface forms. Each nonword was presented with a pictured 'meaning,' and participants were assigned to Orthography or No-Orthography conditions. Following a practice test, participants performed a matching task, where detecting mismatch trials required knowledge of the final devoicing process. Pictures were paired with auditory forms with correct ([krop] for /krob/ 'cat) or incorrect ([krob]) stem-final voicing ('match' or 'mismatch' trials, respectively). We found that Orthography participants experienced more difficulty rejecting voicing mismatches for underlyingly voiced words in their unsuffixed forms, but outperformed No-Orthography participants for voiced-suffixed words (replicating the "trade-off"). However, this finding was complicated by unexpectedly low accuracy on voiceless words. A second experiment suggests that participants did not generalize the learned pattern to new words. Together these results indicate that prior findings are robust to methodological variation, but paint an increasingly complex picture of final devoicing acquisition.

Contribution of Speech Properties in Evaluating Pleasantness, Fluency, Comprehensibility, and Accentedness in the Speech of Accented Talkers
Oral Session II / Room 3 - 3:00 p.m. – 3:25 p.m.
Jieun Lee, University of Wisconsin-Milwaukee
Dong-Jin Kim, University of Wisconsin-Milwaukee
Hanyong Park, University of Wisconsin-Milwaukee

Listeners evaluate many aspects of the speech of their interlocutors. Research on the contribution of segmental and suprasegmental features to such evaluations of accented speech can help us understand underlying processes in the minds of listeners during perceptual assessment. In this study, we investigated the relative contributions of 11 speech properties to American English speaking listeners' ratings of pleasantness (listeners' subjective attitude toward speech), comprehensibility, fluency, and accentedness of spontaneous utterances in English spoken by female native Korean speakers. In particular, we tried to probe why some perceptual dimensions are closely related to each other (e.g., pleasantness and fluency).

Using the listeners' rating results for the aforementioned dimensions, we constructed best-fitting models for each dimension which propose the orders of measured speech properties for predicting listeners' ratings. While no identical orders were observed for the four dimensions, multiple overlapping predictors existed in all models: Repair Fluency (RF), Speech Rate (SR), Fundamental frequency (F0) mean, F0 range, and number of syllables. We also observed that the top three measures (SR, RF, F0 mean) were the same for the models predicting pleasantness and fluency ratings. These findings suggest three important points regarding native listeners' perceptual evaluation of speech by second language (L2) learners. First, some properties are too salient to ignore in evaluating L2 speech. Second, the different amount of contribution from each of the speech properties leads to the distinctiveness of each perceptual dimension. Third, native listeners use the same speech properties differently for assessing different dimensions of L2 speech, resulting in a close relationship between some dimensions (e.g., pleasantness and fluency). With respect to L2 pedagogy, we suggest identifying the so-called "golden" speech properties and focusing on improving those aspects of pronunciation, aiming for effects across more dimensions.

A Litmus Test for the Perception–production Link: Individual Differences in Perception and Imitation and Their Relationship to Production
Oral Session II / Room 4 - 3:00 p.m. – 3:25 p.m.
Charles Nagle

According to the Speech Learning Model (Flege, 1995), if second language (L2) learners become attuned to the phonetic dimensions distinguishing similar native and L2 sounds, then they could establish a new L2 phonetic category, which should also promote L2 production accuracy. Although studies oftentimes demonstrate a relationship between perception and production measures, weak and null results are not uncommon. One barrier to developing a comprehensive understanding of the perception–production link is a lack of longitudinal research that could document when learners' performance in the two modalities becomes aligned. This study addressed this shortcoming by examining individual differences in perception and production over time.

Thirty English-speaking learners of Spanish participated once per month while enrolled in the first year of university-level Spanish. At each session (k = 7), they completed picture description (extemporaneous production), delayed word repetition (imitative production), and oddity (perception) tasks targeting Spanish voiced and voiceless stop consonants (/b/ vs. /p/). A' was computed for oddity contrasts, and VOT measurements were taken for word-initial stops in both production tasks.
Mixed-effects models fit to the oddity data demonstrated that learners' discrimination of the Spanish voicing contrast ([b]–[p]) improved significantly over their first months of instruction. Their imitation of voiced stops likewise showed significant improvement, but their imitation of voiceless stops did not. When perception and imitation performance were defined as a timevarying predictors of extemporaneous VOT production, modeling revealed that (1) learners who imitated word-initial stops more accurately produced more accurate VOT in both voiced and voiceless stops and (2) learners who imitated /p/-targets more accurately than they had at other sessions (a within-subjects contrast) produced more accurate VOT in L2 /p/. Findings provide time-sensitive evidence for a tight coordination of L2 perception (imitative production) and extemporaneous production, while also revealing individual differences in perception– production relationships.

"Hi can't ear it": An Exploratory Case Study in the Instruction of /h/
Oral Session II / Room 5 - 3:00 p.m. – 3:25 p.m.
Houston McClure, Indiana University
Tory Robinson, Indiana University

The English aspirated /h/ is difficult for L2 speakers whose L1 does not have this phoneme (e.g. Italian, French). Yet, it is not taught, and not well understood in research. We observed that L1 French or Italian learners of English sometimes erroneously insert /h/ ("I" pronounced as "hi") or delete it ("hear" pronounced as "ear"). Numerous English minimal pairs create high functional load and high potential for instruction.

In this case study, we instructed an Italian learner of English in the pronunciation of <h>- and vowel-initial words to examine whether teaching /h/ would be helpful. For him, the critical difficulty was not to articulate /h/, but rather knowing when not to do it. Our approach used perception and production activities, coupled with explicit instruction about /h/ in English following the Communicative Framework. Six 30-minute training sessions were conducted over three months. A pre-test (isolated words, minimal pairs, read and spontaneous narratives) with 132 tokens was used as a baseline, showing insertions at 19.7% and deletions at 3.8% in our learner's productions. At post-test, the learner's insertions decreased to 2.3%, while deletion remained reliably low, also decreasing to 2.3%. A delayed post-test containing some new material to evaluate generalization was conducted approximately three and a half months after the original post-test. By then, the learner produced insertions at 8.2% and deletions at 4.5% in 134 tokens, potentially indicating some retention of the training.

Overall, our training was effective. Our data show that learning to pronounce /h/ is not as challenging as learning when not to pronounce it. This is likely a lexical encoding problem perhaps related to the perception of /h/ in our learner. While our approach did not heavily address perception, perception remained difficult throughout. We will discuss future directions which could address both perception and lexical encoding approaches.

L2 French Pronunciation Development during Short-term Study Abroad
Oral Session III / Room 1 – 3:45 p.m. – 4:10 p.m.
Shannon Becker, Northern Illinois University
Mandy Faretta-Stutenberg, Northern Illinois University

Since the 1990s, study abroad research has been growing in popularity and increasing in scope; however, only a handful of scholars have analyzed second language (L2) French development in a study abroad context. Current literature highlights broad development in oral fluency (e.g., Freed et al, 2004), but there is a paucity of research into specific areas of L2 French development, including aspects of pronunciation known to be difficult for L1 English speakers, such as nasal and front rounded vowels (see, for example, Kennedy Terry, 2017 for an analysis of lateral elision among study abroad learners). Additionally, despite burgeoning interest in the potential of short-term study abroad, most studies in French have focused on semester- or year-long programs.

With an eye toward providing more data regarding the development L2 French pronunciation during short-term study abroad, we explored phonological development over the course of a three-week immersive program in Aix-en-Provence, France. Participants were all native speakers of English; all lived with host families, completed a three-credit hour course on regional culture during the program, and participated in multiple group excursions. French was used exclusively during classroom instruction and excursions.
Participants completed a series of six oral journals, spanning from one-week prior to two weeks after the program, allowing for detailed within-subjects analyses of vowel production from pre- to post-program. In order to probe relationships between experiential factors and L2 pronunciation changes evidenced, participants also completed a weekly language use questionnaire. Preliminary results from a group of six students indicate improvements in target-like vowel production, with a role for amount and type of L2 contact. The data reported here provide evidence of L2 French pronunciation development during short-term study abroad, and serve to inform the design of future, in-depth investigations into L2 French development in a study abroad context.

Lexical Factors in the Pronunciation of Intermediate L2 Spanish Learners: Vowel Quality in Cognates and Early-learned Words
Oral Session III / Room 2 - 3:45 p.m. – 4:10 p.m.

Alyssa Martoccio, University of Colorado Denver
Devin Jenkins, University of Colorado Denver

Only a handful of phonetics studies to date have tested the acquisition of Spanish vowels by native English-speaking learners. These studies, including Cobb and Simonet (2015), Díaz and Simonet (2015), García de las Bayonas (2004), Menke and Face (2010), Morrison (2003) and Simões (1996), have provided inconsistent conclusions regarding vowel quality difficulty among these learners.

We propose that another strand of phonetics research on lexical factors (including cognate status and when words were learned), may help to shed some light on these differences in results (Counselman, 2015; Flege, Frieda, Walley, and Randazza, 1998; Flege and Munro 1994; Flege, Takagi, and Mann, 1995, 1996). Nearly all of these lexical factors studies have tested English as a Second Language (ESL) learners.

The current study links these two areas of research, testing vowel quality production of early-learned versus later-learned words and cognates in relation to the linguistic factors of vowel position (pre-tonic and post-tonic) and stress (stressed and unstressed syllables). Participants included 30 intermediate level Spanish phonetics students who completed an oral text reading task. Recordings were then analyzed for vowel quality.

Results found a weak correlation between vowel quality errors and early-learned words, r = 27, and revealed a u-shaped pattern for inaccuracy of vowels in very early-learned and very late-learned words. Findings also indicated a significant correlation between cognates and inaccurate vowel quality, r = .38, similar to research by Cochrane (1980), Flege and Munro (1994) and Hammerly (1982) for other phonetic segments. Other factors affecting vowel quality included vowel position and number of syllables. These results show that pronunciation instruction should place particular emphasis on differences between pronunciation of cognates in first and second language acquisition and should be a focus when first introducing words to learners.

Training Japanese EFL Learners to Perceive and Produce English /l/, /r/, and /w/ using High Variability Pronunciation Training (HVPT) Application
Oral Session III / Room 3 - 3:45 p.m. – 4:10 p.m.
Atsushi Iino, Hosei University
Ron Thomson, Brock University

While numerous studies have examined the efficacy of HVPT for training Japanese listeners to perceive English /l/ and /r/ contrasts (Logan, Lively, & Pisoni, 1991; Bradlow, Akahane-Yamada, Pisoni, & Tohkura, 1999, among numerous others), training in such studies have been limited to phonetic laboratories. In the current study, a publicly available HVPT platform (www.englishaccentcoach.com) was used to demonstrate the utility of HVPT in the real-world, and to extend a previous study (Iino & Thomson, 2018), which examined the effect of perceptual training for Japanese learners of English on production of /l/, /r/, /w/ sounds. In the earlier study, improvement in production was mixed, and depended on the proficiency level of the learners: high level learners showed small progress in production, whereas lower level learners gained more. With the aim of extending the previous research, the current study again trained learners to perceive the three-way English /l/-/r/-/w/ distinction, but this time required that learners also sound out the stimuli in an authentic language class environment. Participants were 32 Japanese learners of English enrolled in freshman English at a Japanese university. Training comprised three-200 item perceptual training sessions per week, over a ten week term. One group of 16 learners was trained to perceive and produce the English consonants in syllable-onset position in CV frames for five sessions, followed by CVC frames for five sessions. Another group of 16 learners was trained in the opposite order. Pre- and post-tests revealed significant improvement in perception in both trained contexts. Gains in pronunciation after perception and production training were also detected through listeners' judgement. Implications for teaching and learning will be discussed.

The Dynamics of L2 Speech: Intelligibility, Comprehensibility, Accentedness and Language attitudes
Oral Session III / Room 4 - 3:45 p.m. – 4:10 p.m.
Hitoshi Nishizawa, University of Hawaii

Language attitudes play an essential role in successful conversation. It has been suggested that negative attitudes hinder the comprehension of L2 speech (Lindemann, 2002). Moreover, when listeners believe that the speaker is NNS, they hear more accent even when the speaker is NS (Kang & Rubin, 2009). However, negative attitudes are not always the causer. Dragojevic & Giles (2016) reveal that increased processing difficulty caused negative attitude towards the speaker. While a myriad of studies examined L2 pronunciation constructs, such as intelligibility, comprehensibility, and accentedness, it seems there is scarce literature investigating the relationships among them and their relationships with the language attitudes. The present study employs path analysis in order to examine the dynamics of these constructs. Six NNSs (three L1 Mandarin and three L1 Japanese speakers) and 65 US raised listeners participated in the study. Intelligibility was measured by the accuracy of the transcription of the final word of lowpredictability-sentences in noise, while the visual analog scale of 100 points was utilized for the rest of the measures. Short sentences read off by the speakers were employed for measuring comprehensibility and accentedness, whereas different short sentences were utilized for verbal guise technique (VGT) to measure language attitudes. The difficulty of the intelligibility was manipulated by the phonological density of the critical words. The preliminary results show that the increased comprehensibility predicts better ratings on the language attitudes in the Chinese condition, whereas no other significant effect was found in other paths. It implies that as in the previous literatures, intelligibility, comprehensibility, accentedness seem to be independent constructs, while comprehensibility may be related to language attitudes. Furthermore, no significant effect between comprehensibility and intelligibility nor accentedness suggests even listeners perceive strong accent, it does not decrease comprehensibility or cause negative attitudes, but still intelligible.

L2 Production of Brazilian Nasal Vowels
Oral Session III / Room 5 - 3:45 p.m. – 4:10 p.m.
Christine Shea, University of Iowa
Christiane Lira, University of Iowa

The perception and production of Brazilian Portuguese (BP) contrastive nasal vowels represents a great challenge for native English speakers acquiring the language. One part of the difficulty lies in perceiving the new contrastive vowels and another, in producing them. The perception-production link in L2 speech learning has been widely studied under many different paradigms, one of which is speech imitation. Because speech imitation tasks necessarily involve both perception-production in one task, they are particularly well-suited to examining the connection.

In this study, we use a modified imitation task to investigate the production of BP nasal vowels by L1 English learners. We ask whether hearing the nasal vowel in an immediately preceding utterance produced by a native speaker leads to more accurate production of that vowel by the learner, when compared to a nasal vowel produced at least four turns distant from the native speaker production. Participants were fifteen L1 English/L2 Portuguese learners (high beginner) studying at US universities who interacted with Brazilian students through the Teletandem project (Aranha, Luvizari-Murad & Moreno, 2015). Teletandem oral practice sessions consist of eight one-hour synchronous video sessions (50 minutes), half in English and half in Portuguese. Tokens were extracted from the video interactions and coded for condition (immediate/nonimmediate, same/different word, same/different vowel). Two native BP speakers (naïve to the extracted token's condition) evaluated the learner productions for approximation to native-like productions.

If imitation indeed plays a role, we predict that the same word/immediate repetition condition will lead to greater approximation of native-like production than more spontaneous production of nasal vowels that occur at least four turns later than the native speaker's production of a different nasal vowel.

Liaison and Enchaînement in French L2: The Role of Instruction
Oral Session III / Room 1 – 4:15 p.m. – 4:40 p.m.
Rodica Frimu, The University of Tennessee

Liaison is a phenomenon in French where a final latent consonant is anchored to the melody (pronounced) only when the following word begins with a vowel. Liaison is usually enchaînée : the final consonant becomes the onset of the next syllable (e.g. les enfants-/le.zɑ̃.fɑ̃/). Instruction usually mentions enchaînement with liaison, although anglophone learners may use liaison without enchaînement (e.g. /lez.ɑ̃.fɑ̃/). Additionally, enchaînement can be found independently of liaison, when a final stable consonant is ressylabified with the following word (in many cases this is preceded by final schwa deletion, otherwise enchaînement would be impossible), for example « langue orale » /lɑ̃.go.ʀal/ (schwa deletion and enchaînemnt) or « sept élèves » /sɛ.te.lɛv/.

This study compares pre-test and post-test data (recorded sentences containing the features in question) of liaison and enchaînement (with and without liaison) obtained from two groups of learners (G1 and G2, enrolled in phonetics or not, respectively ; similar course level) and a group of native speakers (NSs) of French. G1 received plenty of instruction on liaison and enchaînement, as opposed to G2 (both groups received similar amounts of input in French).

G1's difference between pre-test and post-test was significantly different from the NSs group difference on latent consonant production or obligatory liaison (p=0.012), enchaînement with liaison (p<0.0001), and enchaînement realization in non-liaison contexts (p=0.002). In contrast, G2 and NSs's difference between pre-test and post-test scores are not significantly different from the NSs' difference on the above mentioned measures. However, on some measures G1 and G2 are statistically similar. It seems that students who receive instruction on these phenomenon perform somewhat better in a post-test, although both groups generally improve, where improvement is more realization of both liaison and enchaînement (in both contexts).

Expanding our Understanding of Intelligibility: Typing Tasks and PsychoPy3
Oral Session III / Room 2 - 4:15 p.m. – 4:40 p.m.
Jordan Gallant, Brock University

The intelligibility of foreign-accented words has often been measured via accuracy scores in transcription tasks (Munro & Derwing, 1999) and word recognition response time (Munro & Derwing, 1995). This study expands the analysis of intelligibility by employing a typing task (Libben & Weber, 2014) to measure total word production time, inter-keystroke latencies, and corrected errors; i.e. typos. These additional measures provide further insight into the processing difficulties that arise from foreign-accented word processing.

An additional innovation of this study was the use of an online experimental software; Psychopy3 (Peirce et al, 2019), to collect fine-grain reaction time data from a variety of participants internationally. Online experimentation opens up new avenues for understanding the relationship between pronunciation and intelligibility on a global scale. By eliminating geographic restrictions on participant sampling, PsychoPy3 can facilitate research that spans speech communities, dialect regions and international borders.

The current study examined the intelligibility of Chinese-accented and Canadian-accented words. Intelligibility was operationalized through word recognition and production latencies. Stimuli were words spoken by English L1 and Chinese L1 speakers. Participants in this study included native-English speakers, Chinese L1 English learners and learners from a variety of other L1 backgrounds.

Consistent with previous literature, lower accuracy scores and higher word recognition times to Chinese-accented stimuli were observed across all populations (Munro, Derwing & Morton, 2006). Additionally, total typing times showed the same pattern. Analysis of inter-keystroke latencies revealed that production was most delayed at typing onset and morpheme boundaries of morphologically complex words. This suggests that reduced intelligibility impedes access to lexical and constituent representations, including orthographic information. Error analysis supported this interpretation, revealing significantly more typos for Chinese-accented words in non-L1 Chinese populations. Taken together, these results suggest a complex interaction between intelligibility and word processing that has not been captured by previous studies.

Non-native Speakers' Perception and Production of the Quantity Contrast in Stressed Syllables in Swedish
Oral Session III / Room 3 – 4:15 p.m. – 4:40 p.m.

Mara Haslam, Stockholm University
Elisabeth Zetterholm, Linköping University

Sweden is faced with an increasing number of non-native speakers of Swedish who need to be able to communicate in Swedish for life and work purposes. Teachers of Swedish as a second language find themselves teaching Swedish pronunciation to speakers from many different language backgrounds. While the phonology of Swedish is quite well documented, relatively little is known about what promotes or hinders intelligibility in non-native Swedish. Stressed syllables in Swedish have either a long vowel or a long coda consonant but not both. This is generally encoded in the spelling system, with syllables with long vowels and short consonants representing the consonant as one letter such as in in the word mat [ma:t] ("food"), while syllables with short vowels and long consonants are written with two consonants after the vowel as in the word matt [mat:] ("matte"). While many languages have long vowels and/or long consonants, Swedish is relatively unique in the fact that the lengths of vowels and subsequent consonants are related to each other in stressed syllables. This presentation shares results of a study based on the hypothesis that the ability to create this length contrast between long and short segments in stressed syllables promotes intelligibility for Swedish listeners. The results shared will include perceptual results that demonstrate non-native speakers' abilities to perceive the aforementioned length contrast in real and nonce Swedish words as well as production results where the same non-native speakers produce the length contrast in real and nonce Swedish words. Perceptual results will be correlated with acoustic measurements to give a fuller picture of what native speakers and non-native speakers of Swedish are listening for in stressed syllables. This study helps to clarify our understanding of Swedish phonology and helps teachers of Swedish pronunciation prioritize what to teach.

Ret[ɜː]ning to the LFC: New Evidence Concerning the Relative Importance of /ɜː/ for International Intelligibility
Oral Session III / Room 4 – 4:15 p.m. – 4:40 p.m.
Veronika Thir, University of Vienna

The only vowel quality included in Jenkins' (2000) 'Lingua Franca Core' (LFC), a core of pronunciation features found to be particularly important for intelligibility among international users of English, is /ɜː/. While Deterding & Kirkpatrick's (2006) findings support those of Jenkins concerning the special status of /ɜː/ in international communication, the latter could not be confirmed by Deterding (2013). Moreover, /ɜː/ was always replaced by a different English phoneme in the above-mentioned studies, and it is yet unclear whether non-target like realizations of this vowel which do not actually result in the loss of a phonemic distinction still remain more problematic for international intelligibility than other L2 vowel qualities that do.
The present paper reports on an experimental study that investigated the international intelligibility of a typical Austrian realization of /ɜː/ (being approximated as [øə]) in comparison to that of the realization of /æ/ as the phoneme /e/. Native and non-native speakers of English from various L1 backgrounds (n=363) listened to an Austrian speaker pronouncing three types of monosyllabic English words: (a) words containing /ɜː/, (b) words containing /æ/, and (c) words containing /æ/ which, in addition, formed part of a minimal pair. Word intelligibility was measured via a cloze test and a single-word transcription task. Intelligibility scores (=overall percentage of correctly transcribed words) differed significantly amongst the three word categories ($\chi2(2)=293.503$, $p<0.0005$), with /ɜː/ words being significantly more intelligible than either type of /æ/ words ($p<0.0005$ for both contrasts), a medium-to-large effect in both cases (r= 0.46 for 'normal' /æ/ words and r=0.50 for 'minimal pair' words).

This finding calls into question the LFC's rather general recommendation to prioritize the teaching of /ɜː/ over other vowel qualities without considering the type of sound substitution (phonemic or phonetic) which learners from a particular L1 background exhibit with regard to /ɜː/.

The Complexities of Spanish Diphthongs in L2 Pronunciation
Oral Session III / Room 1 – 4:45 p.m. – 5:10 p.m.
Germán Zárate-Sández, Western Michigan University

Research on second language (L2) syllable structure since Tarone (1980) has focused mainly on the acquisition of segments in onsets and codas, while much less is known about syllabic nuclei. The goal of this paper falls within this area; specifically, it deals with the acquisition and production of diphthongs by L2 learners.

A total of 57 English-speaking learners of Spanish divided into three proficiency levels (from low intermediate to advanced) were recorded while reading 47 Spanish words, half cognates and half non-cognates, containing vocalic sequences that native speakers judge as tautosyllabic (diphthongs of both rising and falling sonority). In a second task, participants completed a paperand-pencil syllabification task for the same items with the goal of collecting their intuitions about the vocalic sequences. A control group of 12 native Spanish speakers also completed the tasks. Two trained phoneticians used Praat to mark diphthong boundaries and analyzed formant transitions for a total of 2,854 tokens. The design and analysis of both tasks drew from Aguilar (1999), Cabré and Prieto (2006), Hualde and Prieto (2002), among others.

Statistical analyses yielded the following general results: (1) Learners tended to produce a hiatus where the control group preferred a diphthong, (2) Sequences of rising sonority (e.g., /ia/) were more frequently produced as hiatuses than those of falling sonority (e.g., /ai/) were, (3) There was an inhibitory effect from cognates with hiatuses in English, (4) No differences were found between proficiency levels, (5) Learners' intuitions about hiatus/diphthong resolution tended to correlate with acoustic analyses.

Findings pertaining to cognate effects are discussed within a non-selective approach to lexical access (Kroll & Sunderman, 2003). Also, the interplay between developmental vs. interference errors is analyzed (Eckman, 1977, and others) since non-target-like forms in this study seemed to provide evidence for both.

Effects of Working Memory Load on L2 Speech Production
Oral Session III / Room 2 - 4:45 p.m. – 5:10 p.m.

Ogyoung Lee, Seoul National University
Hyunkee Ahn, Seoul National University

L1 speakers tend to retrieve the memorized articulatory routines that they have stored in the long-term memory through over-practice (e.g., Browman & Goldstein, 1992). Lee and Redford (2015) supported this argument by showing that American English native speakers produced rhythm, intonation, and vowels in similar fashion, regardless of whether they spoke under working memory load or they simply spoke. The participants in their study produced the token English sentences at faster rates and with more errors under working memory load conditions but showed no significant difference in performance regarding the task type (verbal or spatial). Following their experimental methods, we investigated whether L2 speakers, who are assumed to have a limited number of stored articulatory chunks for L2 in their long-term memory, would display similar patterns as observed in L1 speech production. A total of twenty college-aged Korean speakers of English (KSEs) were asked to familiarize themselves with a set of thirty-two English sentences, and then produced the sentences under working memory load conditions (verbal and spatial) and also under a control condition. In the load conditions, speakers were engaged in a task that taxed either verbal or spatial working memory while speaking. In the control condition, they completed mathematical equations before speaking and thus had no additional load while speaking. The results showed that under working memory load KSEs not only spoke faster and made more errors but they also produced articulation patterns significantly different from those produced under the control condition. Furthermore, their speech was impaired more in the verbal type task than in the spatial task. This study argues that, contrary to L1 speech production process, L2 speech production depends more heavily on ongoing processing of phonological-phonetic information (e.g., Levelt, Roelofs, & Meyer, 1999) rather than on retrieving from remembered articulatory templates.

L2 Comprehensibility and Accentedness – Listeners who Share Speakers' L1
Oral Session III / Room 3 – 4:45 p.m. – 5:10 p.m.
Elina Tergujeff

Research within the fields of L2 comprehensibility, accentedness and assessment studies have yielded contradicting results as for the role of listener qualities such as sharing the speakers' L1. Some studies suggest that NNS listeners sharing L1 with the speakers rate speakers more comprehensible and less accented than what NSs do (e.g. Gallardo del Puerto et al. 2015), whereas other studies have found NNS listeners sharing the speakers' L1 stricter in their ratings (e.g. Kang et al. 2016). This study aims to find out how L1 Finnish and L1 Swedish listeners rate their peers' L2 English for comprehensibility and accentedness in comparison to English-speaking listeners.

In this study, forty 20-second samples of L2 English were rated for comprehensibility and accentedness. The speakers were L1 Finnish-speaking (n=20) and L1 Swedish-speaking (n=20) teenagers from Finland, previously assessed as for their overall English oral proficiency. Half of the speakers in both language groups were A2-level speakers of English on the CEFR scale, whereas the other half were B1-level speakers. Listeners were speakers of English (n=34) and L1 Finnish-speaking (n=31) and L1 Swedish-speaking (n=30) Finns (speakers' peers).

The results reveal that the two language groups from Finland differ as listeners. L1 Swedish speakers were more lenient towards their peers' English, and rated them more comprehensible and less accented than the English-speaking listeners did. L1 Finnish-speaking listeners, however, did not diverge from the English-speaking listeners as for the comprehensibility ratings, and they rated their peers more accented than what the English-speaking listeners did. These results imply that the category of "NNS listeners sharing the speakers' L1" may be too simplistic for listener studies, and that other factors such as attitudes towards one's own accent may also play a role.

Examining Predictors of Phonetic Variation in Semi-spontaneous L2 Spanish Speech: Does Input Frequency Play a Role?
Oral Session III / Room 4 – 4:45 p.m. – 5:10 p.m.

Shelby Bruun, Iowa State University
Charles Nagle, Iowa State University

Longitudinal research on second language (L2) sound learning demonstrates that speakers' production of challenging L2 sounds can improve in the absence of targeted instruction (e.g., Munro & Derwing, 2008; Hanzawa, 2018). Although the growing body of longitudinal work provides insight into the rate and shape of development, the mechanisms that shape L2 phonetic learning are not yet well understood. At least one study suggests that learners are sensitive to the frequency characteristics of the input they receive (Trofimovich, Collins, Cardoso, White, & Horst, 2012), but more work on this topic is needed. Consequently, the current study explored whether the frequency of forms in teachers' speech predicts L2 Spanish learners' production of voiceless stops during their first year of university-level Spanish.

The data described here are part of a longitudinal data set collected from native English speakers enrolled in first- and second-semester Spanish language courses. At each monthly session, participants completed a picture description task designed to elicit semi-spontaneous speech in Spanish. For the current analysis, 16 participants were selected based on the availability of data coinciding with the beginning and end of the first semester and end of the second semester. Speech samples were transcribed, and voice onset time (VOT) of syllable-initial /p, t, k/ was annotated and measured in Praat. Participants' instructors were also recorded during two class periods, resulting in four hours of teacher speech. Frequency was operationalized as frequency per million in Corpus del Español and as relative frequency in the instructor data. After accounting for a range of phonetic features known to affect VOT (e.g., lexical stress, following vowel height, etc.), preliminary analyses suggest that learners produced words that were more frequent in their instructors' speech with significantly shorter (i.e., more Spanish-like) VOT, even though their VOT production did not show significant change over the year.

The Impact of Visual Feedback on Segmental Production: Linking Theoretical and Classroom Approaches
Oral Session IV / Room 1 – 1:30 p.m. – 1:55 p.m.
Daniel Olson, Purdue University
John Nielsen, Purdue University

Classroom approaches to pronunciation call for greater understanding of both the effectiveness of pedagogical practices and the cognitive underpinnings of phonetic acquisition (Derwing & Munro, 2015). Theoretically, most researchers approach phonetic acquisition segmentally, considering each phoneme in isolation (e.g., Flege, 1995). Alternatively, phonetic acquisition may occur at the subphonemic, feature level (e.g., de Jong et al., 2009), with acquisition generalizing across all phonemes that share a particular feature (e.g., voicing). Considering pedagogical and theoretical issues, this study has two main goals: (1) to test the efficacy of a classroom-based, scaffolded visual feedback training for segmental instruction, and (2) to assess whether improvement of the voice onset time (VOT) feature for voiceless stop consonants leads to improvement in voiced consonants.

Using a pre-test, classroom intervention, post-test design, with a 4-week delayed post-test, 24 intermediate-level, English-speaking learners of Spanish participated in a scaffolded visual feedback training on /p,t,k/. Spanish and English differ in VOT (Table 1). The intervention consisted of three homework and classroom sessions, in which participants recorded words with initial voiceless stops in isolation, utterances, and stories. They analyzed self- and native-speaker produced spectrograms/waveforms (Olson, 2014). While participants received training on voiceless stops, both voiceless /p,t,k/ and voiced stops /b,d,g/ were assessed. Target tokens were balanced for wordinitial phoneme (voiced vs. voiceless stops) and controlled for stress, cognate status, etc. A control group (n = 13) was trained on an unrelated feature (i.e., vowel duration). Preliminary results (2,810 tokens) suggest that the scaffolded visual feedback approach leads to a significant reduction in VOT for voiceless phonemes (pretest vs. posttest: $p < .05$). However, no significant shift was found for voiced phonemes ($p = .75$). No correlation between voiced and voiceless VOT shifts was evidenced ($r = .37$, $p = .72$). These results suggest a phonemic understanding of phonetic acquisition and support visual feedback as a useful pedagogical tool.

Diagnostic Language Assessment for L2 Pronunciation: A Worked Example
Oral Session IV / Room 2 - 1:30 p.m. – 1:55 p.m.
Daniel Isbell, Michigan State University

Pronunciation teaching is arguably in the midst of a renaissance (Derwing & Munro, 2015; Lee, Jang, & Plonsky, 2014) and pronunciation has also begun to receive increased attention in language testing (Isaacs, 2018). However, the link between pronunciation instruction and assessment is largely absent: Most work on pronunciation assessment concerns high-stakes proficiency tests focused on global pronunciation quality, with few examples of low-stakes, learner-focused, instructionally-relevant pronunciation assessments. One avenue for addressing this gap is Diagnostic Language Assessment (DLA, Alderson, 2005; Alderson, Brunfaut, & Harding, 2014). DLA, in contrast to proficiency tests, achieves greater relevance to teaching and learning by providing teachers and learners with information on specific subskills and discrete linguistic components.

In this talk, I present a worked example of DLA for diagnosing learner strengths and weaknesses in L2 Korean segmental pronunciation. I begin by presenting the basis and design of the diagnostic. Then, I introduce the test's validity argument (Chapelle, Enright, & Jamieson, 2008; Kane, 2013), used to evaluate the appropriacy of test score interpretation and use, and summarize supporting evidence. I collected test data from 198 learners, who each completed the diagnostic test, a pronunciation self-assessment, a spontaneous speaking task, and an elicited imitation task. I interviewed a subset of 21 learners, who provided their initial reactions to receiving a diagnostic feedback report and discussed potential applications of the information; 14 of them returned for a second interview 3-4 months later to discuss learning activities and retake the diagnostic. I highlight how the test's measurement qualities (reliability, item statistics), relations with external measures (self-assessments, oral proficiency, and pronunciation errors in spontaneous speech), and learners' interpretation and application of diagnostic feedback contribute to appropriate and potentially beneficial use of the test. Finally, I discuss considerations for diagnosing L2 pronunciation and provide suggestions for future work in the area

The Impact of Linguistic Diversity Education on Facilitating Effective Communication from the Perception of Native English Speakers
Oral Session IV / Room 3 – 1:30 p.m. – 1:55 p.m.

Brandon Cooper, Texas A&M University
Ginessa Payne, Texas A&M University
Xueyan Hu, Texas A&M University
Quentin Dixon, Texas A&M University
Li-Jen Kuo, Texas A&M University

This presentation reports on a pilot study of a linguistic diversity project at a southern university, aiming to facilitate communication between native English speakers (NESs) and non-native English speakers (NNESs) by changing NESs' language ideologies and attitudes. Two intervention activities were used in this study: a social event based on contact theory (Allport, 1954), and a one-hour interactive workshop about linguistic diversity. Seventeen American undergraduates were recruited in the study, thirteen in Group A participating in both of the activities, three in Group B participating only in the social event. Two weeks before the activities, they rated the comprehensibility and accentedness of seven speech samples with a seven-point Likert scale. Each speech sample was a two-minute audio recording excerpted from an eight-minute teaching demonstration by an international graduate student. One or two weeks after the activities, participants rated the speech samples again for the same measurements. Participants' attitudes towards accented English were also measured before and after the interventions.

A paired sample t-test was used for the data analysis. Due to the limited sample size, there was no statistically significant improvement in language attitudes for participants in each group. However, improvement was identified when both groups' data was combined. At the same time, all participants' perceptions of the comprehensibility of the speech samples were improved, but this improvement was not observed in their perceptions of accentedness. Participants' reflections about the events also reflected an improvement in language attitudes.

These preliminary findings support the impact of the two activities on changing NESs' language ideological status as well as enhancing effective communication between NESs and NNESs in terms of comprehensibility. Implications and recommendations will also be discussed for future linguistic diversity training programs and related research.

Not All Allophones Are Created Equal: Asymmetries in the L2 Acquisition of Allophones and Their Distribution
Oral Session IV / Room 4 – 1:30 p.m. – 1:55 p.m.
Rebeka Campos-Astorkiza, Ohio State University
Oihane Muxika-Loitzate, Ohio State University

When considering the L2 acquisition of allophonic distributions, there are at least two situations: the presence of allophones in the L2 that do not exist in the L1, or the presence of similar allophones in both L1 and L2 but with a different distribution. The goal of this paper is to compare the rate of acquisition of these two situations to contribute to our understanding of how L1 phonology might affect L2 acquisition. To this end, this study compares the acquisition of the Spanish voiced and voiceless stops allophones by L1 American English learners. Spanish presents an alternation between voiced stops and approximants, while English displays only voiced stops. On the other hand, unlike in English, Spanish voiceless stops are unaspirated in all environments.

Our data come from two online modules completed by 25 L2 learners as part of a college-level Spanish pronunciation course. Students recorded themselves reading a word list at the beginning (timepoint T1) and end of the semester (timepoint T2). These modules also served a pedagogical purpose, giving students instant feedback on their pronunciation. To evaluate the production of voiced and voiceless stops, we measure the VOT of voiceless stops and the intensity of voiced stops in order to capture the gradience of the allophonic alternations (Rogers & Alvord 2014). We then compare the rate of change in reducing VOT (less aspiration) and increasing intensity (more approximantization) via z-scores.

Results indicate no significant difference in VOT, which falls within the English aspirated range, but a significant increase in intensity in T1 vs. T2. The z-scores further show that voiced stops present a greater change in T2 vs. T1 and that decrease in VOT is not correlated with increase in intensity, suggesting that students might improve their voiced stops without an accompanying improvement of their voiceless tops. Our conclusion is that learners become better at producing approximants than at producing unaspirated voiceless stops. We explore the implications of these findings in relation to the two allophonic situations mentioned earlier.

Pronunciation Learning Strategies (PLS) of L2 Vietnamese Learners: How Learners Form Their PLS and how PLS Affect Their Pronunciation Achievement
Oral Session IV / Room 1 – 2:00 p.m. – 2:25 p.m.
An Nguyen

This study examined the pronunciation learning strategies of two late learners of L2 Vietnamese who have been learning the language for nearly a decade to investigate their choice of strategy use and its correlation with their pronunciation achievement. Both participants are from Canada and started learning Vietnamese for missionary work when they turned to middle age. Though both participants have high command of language and having been living in Vietnam and preaching in Vietnamese, while one learner sounds nearly native, the other learner has been struggling to be intelligible to local Vietnamese. The Strategic Pronunciation Learning Survey (SPLS) adapted from the survey of Eckstein (2007) and Baker and Haslam (2013) shows that both frequency and duration of strategy use of the learner with higher achievement in pronunciation are lower than those of the learner with lower achievement in pronunciation. Qualitative data from semi-structured interviews indicate that both learners are in common in seeing the biggest difficulty in Vietnamese pronunciation, which is the inventory of vowels that are by far more complicated than English, but they are in contrast in stating the most helpful strategies for their pronunciation learning. The findings of this study suggest that corrective feedback is essential for late language learners and that knowing phonological features of the language is necessary for a learner to produce speech.

The Effect of Lexical Appropriateness on Accentedness and Comprehensibility
Oral Session IV / Room 2 - 2:00 p.m. – 2:25 p.m.
Md Nesar Uddin, The University of Memphis
Mahmuda Sharmin, The University of Memphis
Romy M. Ghanem, The University of Memphis

Factors influencing accentedness and intelligibility in L2 oral productions have been investigated by various studies over the years. Phonological features (segmental and suprasegmental) are usually the focus of such studies and have been consistently correlated with accentedness which is at times related to intelligibility (Riney & Flege, 1998; Riney, Takada, & Ota, 2000), but not to comprehensibility (Kennedy & Trofimovich, 2008; Munro & Derwing, 2015). Very little research has incorporated lexical and grammatical features in relation to comprehensibility and accentedness of L2 speech (Munro and Derwing, 2006). Even fewer studies examined lexical appropriateness (i.e. native-like word choice) as a variable that affects the perception of second language productions. This presentation reports on the findings of a study which examined the effect of lexical appropriateness on the comprehensibility and accentedness ratings of nonnative speech.
Three speakers (a native speaker, a low proficiency nonnative speaker, and a high proficiency nonnative speaker) each recorded ten sentences: five lexically appropriate and five inappropriate utterances. All sentences were grammatically correct; the lexically inappropriate sentences deliberately worded ideas in a nonstandard manner, as identified by native speakers. Undergraduate students (N=175) at a Southern university rated each utterance for accentedness and comprehensibility. Multivariate analyses showed a significant effect of lexical appropriateness. Post hoc analyses demonstrated differences between appropriate vs. inappropriate scores for nonnative speakers but no significant differences for the native speaker. The findings suggest that lexical appropriateness and producing utterances with the suitable wording have an effect on how native speakers perceive and understand those utterances. The study contributes to current approaches to the study of L2 speech and pronunciation research. Implications also extend to the L2 pronunciation classroom, helping teachers make informed decisions about teaching low or high proficiency students how to produce comprehensible L2 productions.

The Effects of Voice Type on Self-Awareness of Pronunciation Errors
Oral Session IV / Room 3 – 2:00 p.m. – 2:25 p.m.

Taylor Anne Barriuso, Iowa State University
Alif Silpachai, Iowa State University
Ivana Lučić Rehman, Iowa State University
Guanlong Zhao, Iowa State University
Evgeny Chukharev-Hudilainen, Iowa State University
John Levis, Iowa State University

Self-awareness is important for improving second language (L2) pronunciation. Learners with high language awareness pronounce the L2 in a more comprehensible and target-like way (Kennedy & Trofimovich, 2010). They may also improve their pronunciation after imitating utterances produced by a native speaker whose voice is qualitatively similar to theirs (e.g., with matching gender) (Felps et al., 2009). This suggests that the voice being imitated may help enhance awareness of errors.

This study examines the effects of the similarity between a model voice and the learner's voice on the learner's awareness of errors. In Experiment 1, Chinese learners of English were asked to identify differences in pronunciation between their production of English sentences and the production of the same sentences provided by a model voice with matching gender. The model voice was provided by a native speaker (Different condition) or generated by resynthesizing the learner's voice to make them sound native-like (Similar condition). The results suggested difficulty in the task, with floor effects for identification (M=25%) and no difference between conditions was found. In Experiment 2, the learners performed the same task, but the complexity was reduced to minimize floor effects. The learners were told the number of errors identified by experts in each sentence and were given monetary rewards for greater correct identification of the errors. The results showed improvements in the identification of errors (M=~50%) and no difference between conditions. The results from both experiments suggest that self-awareness of pronunciation errors is difficult for L2 learners and that voice similarity might not help to enhance awareness of L2 pronunciation errors. The findings also suggest that awareness of pronunciation errors is challenging and that teachers should scaffold promotion of awareness between a model voice and the learner's own production.

The Acoustic Correlates of Lexical Stress in Japanese-Accented English
Oral Session IV / Room 4 – 2:00 p.m. – 2:25 p.m.
Ettien Koffi, St. Cloud State University

According to existing suprasegmental typologies, languages fall into two broad categories: accent languages versus tone languages. However, Japanese is neither of the two; it belongs to a betwixt and between category known as pitch-accent languages (Hyman 1975:230-231). The fact that Japanese and English (stress-timed language) belong to two different prosodic systems raises three important questions:

1. Since Japanese is suprasegmentally different from English, can L2 speakers produce English lexical stress intelligibly?

2. Which acoustic correlate do they rely on to encode lexical stress in English?

3. Does the prosodic strategy used interfere with intelligibility?

Kondo (2000, 2009) has provided preliminary answers to these questions by stating that Japanese speakers rely overwhelmingly on F0 to encode lexical stress in English. However, in a 2018 paper co-written with Konishi and Yun, they found that correlate ranking in Japanese-accented L2 English is largely determined by proficiency levels, contending that beginners rank the acoustic correlates of lexical stress as F0 > Duration > Intensity, while advanced learners rely on Duration > F0 > Intensity. There are both theoretical and methodological reasons why the 2018 rankings should be taken with a grain of salt. The current study revisits these issues by measuring the acoustic correlates of lexical stress in seven disyllabic words <Stella, maybe, brother, also, plastic, Wednesday, station> that 10 Japanese L2 speakers of English produced in running speech. Just Noticeable Difference (JND) thresholds in F0, intensity, and duration are used to gauge the suprasegmental characteristics of these words by comparing them with those produced by 10 native speakers of General American English who uttered them in the same exact phonological environments.

How do Iranian EFL Learners Engage with Oral Corrective Feedback on Lexical Stress Errors? Effects of Learner Engagement on the Working of Corrective Feedback
Oral Session IV / Room 1 – 2:30 p.m. – 2:55 p.m.
Hooman Saeli, The University of Tennessee, Knoxville

This study explored the affective, behavioral, and cognitive engagement of 18 Iranian EFL learners with oral corrective feedback provided on lexical stress errors. The data were collected using questionnaires, pretests, posttests, and qualitative interviews. The questionnaire responses showed that the participants held various perceptions about direct feedback. Additionally, the analysis of the pretest and posttest results indicated that the learners with positive perceptions about direct feedback had significantly higher lexical stress accuracy gains, compared with the students with unfavorable perceptions. Also, the students who viewed the provided direct feedback favorably tended to have positive affective, behavioral, and cognitive engagement with it. The learners with positive perceptions, for instance, more frequently reviewed the provided feedback and used cognitive resources in using the feedback. On the other hand, the students with negative perceptions about direct feedback showed stronger disengagement with it, especially in behavioral and cognitive engagement. The findings suggest that learners' affective, behavioral, and cognitive engagement can have significant effects on their accuracy gains and the ultimate working of feedback. Overall, as also shown by the data analysis, students' perceptions seem to filter the feedback they receive, thereby helping shape how they engage with feedback. Therefore, teachers are encouraged to delve into their students' perceptions about feedback and, accordingly, provide them with individualized feedback.

TOEFL iBT Speaking Scores and U.S. Undergraduates' Judgments of Comprehensibility, Accentedness, and Acceptability
Oral Session IV / Room 2 - 2:30 p.m. – 2:55 p.m.
Mohammadreza Dalman, Northern Arizona University
Okim Kang, Northern Arizona University

There has been a burgeoning trend of relying upon international graduate students for teaching introductory undergraduate courses at American universities (Williams, 1992). This trend has prompted scholars to address issues related to speaking proficiency of the international teaching assistants (ITAs). The research is inspired by the fact that American undergraduates voice their dissatisfaction with the poor communication skills of their international teachers. This study investigated to what extent high proficiency NNSs rated by ETS are perceived by U.S. undergraduates for their comprehensibility, accentedness, and acceptability for teaching. It also explored to what extent the acoustic fluency variables of the high proficiency NNSs correlate with U.S. undergraduates' perceptions of their comprehensibility, accentedness, and teaching acceptability. Forty-six U.S. undergraduates evaluated and commented on 20 TOEFL iBT speech samples from high proficiency NNSs, who had all earned complete scores (4/4) on the speaking section of the exam, on a 7-point Likert scale. The acoustic fluency variables comprised of three categories of features including rate measures (syllables per second and mean length of run), pause measures (number of silent pauses), and pitch measures (overall pitch range). The results revealed that U.S. undergraduates perceived the high proficiency NNSs to be highly comprehensible and acceptable for teaching even though they were perceived to be accented. Furthermore, the results of the linear multiple regression analyses revealed that only comprehensibility emerged as the sole potent predictor of NNSs' acceptability for teaching. Also, the results indicated that among the four acoustic fluency variables, only syllables per seconds emerged as the strongest predictor of NNSs' comprehensibility, accentedness, and acceptability for teaching. The results of this study would inform those in charge of hiring and training ITAs that U.S. undergraduates prioritize comprehensibility over accentedness for accepting NNSs as teachers, and TOEFL iBT scores truly reflect NNSs' degree of comprehensibility.

Predicting Learner Difficulty: The Perceptual Assimilation of 20 Hindi Consonants by Native English Speakers
Oral Session IV / Room 3 – 2:30 p.m. – 2:55 p.m.

Rachel Hayes-Harb, University of Utah
Shannon Barrios, University of Utah

Hindi consonant contrasts are known to pose perception and production difficulties for native English speakers (e.g., Polka, 1991; Werker & Tees, 2002; Cibelli, 2015). While a limited set of Hindi consonants have received a great deal of attention (i.e., the coronal stops), we still do not know how learners perceive other segments from Hindi's relatively large consonant inventory. To address this gap, we investigated the perceptual assimilation of twenty Hindi consonants (tʃ, tʃʰ, dʒ, dʒʰ, ʈ, ʈʰ, ɖ, ɖʰ, t, tʰ, d, dʰ, ʃ, ʂ, s, z, l, r, ɽ, ɽʰ) by native English speakers.

Thirty native speakers of English with no prior native or second-language experience with Hindi participated in a perceptual assimilation study modeled after Faris, Best and Tyler (2018). First, participants practiced associating the initial consonants in English words to English keywords containing eleven phonemes in initial position (e.g., [tu] 'to' maps to the keyword "tank" and [do] 'dough' to "damp'). Then, participants used the same eleven English keywords to categorize the initial consonants in Cə syllables produced by a male native speaker of Hindi (C represents the twenty Hindi consonants). There were six tokens of each syllable for a total of 120 trials. Following each categorization response, participants rated the sound for how well it matches the English category they had selected on a scale of 1 (very strange) to 7 (perfect).

Participants exhibited patterns of assimilation for sets of Hindi phonemes that suggest that the discrimination of a broad range of sounds across the Hindi consonant inventory will be quite difficult for learners. We consider the findings in the context of the Perceptual Assimilation Model (Best, 1994; Best & Tyler, 2007) and discuss the implications for Hindi acquisition by native English speakers.

Perception of Unstressed Vowels by L2 Spanish Learners: Syllable Position, Orthography and Experience
Oral Session IV / Room 4 – 2:30 p.m. – 2:55 p.m.
Hadley Forst, University of Arizona

Second language learners often struggle with the perception and production of segmental and suprasegmental elements of speech. There is ample evidence that the first language influences many aspects of second language acquisition, including speech perception and production. This influence is particularly noticeable in the early stages of acquisition. There is some debate over the relationship between perception and production, however it is generally agreed that accurate perception proceeds accurate production. English learners of L2 Spanish frequently struggle with perceiving and producing Spanish vowels accurately, in spite of the fact that the vowel inventory of Spanish is smaller. In English, unstressed vowels are often subject to reduction, whereas in Spanish vowels are never reduced, and reduction of Spanish vowels can change the meaning of words and sentences. The present study examined L1 English speakers' perception of unstressed vowels and the influence that the factors of experience, orthography, prosodic structure and syllable position play in L2 Spanish perception. University students from three levels of instruction participated in three activities: an A/X discrimination task, an identification task, and a listen and spell task. All three tasks focused on the location of unstressed vowels in relation to the stressed syllable, considering several pre-stress and post-stress positions. Results indicate that L1 English prosody and syllable structure do influence L2 Spanish learners' perception of unstressed vowels. Prosodic structure, vowel position, experience and orthography all had a significant effect on the accuracy of learners' perception. Due to the fact that vowels are contrastive segments in Spanish, this study provides important insight for teachers of Spanish, as well as for future research into second language speech perception and production.

Associations between L2 Speech and Music Perception in Mandarin Learners of English
Oral Session IV / Room 1 – 3:00 p.m. – 3:25 p.m.
Xizi Deng, Simon Fraser University
Cathy Lin, University of British Columbia
Henny Yeung, Simon Fraser University

Prior work has suggested that musical abilities are associated with second language learning (Slevc & Miyake, 2006), but rhythmic and melodic sub-domains may be differentially associated with language learning. For example, other studies have found rhythm-specific improvement in French learners of English (Cason et al., 2019; Bhatara et al., 2015), but little work has investigated other language learners. In the current study, forty-six native Mandarin L2 speakers of English were tested on musical rhythm and melody perception, and four domains of L2 speech proficiency: segment perception, lexical stress perception, as well as vocabulary and text comprehension. Multiple regressions with both melodic and rhythmic music perception measures as predictors (controlling for overall music experience) were run on each of the four L2 speech domains, revealing that only melody perception significantly contributed to the prediction of segment perception (β=.37, p=.04), while rhythm perception did not (β =-.18; p=.30). Neither melody nor rhythm perception predicted lexical stress perception (both p's > .38). Only melodic aspects of music perception correlated with vocabulary (β =.42, p=.015), while only rhythm perception correlated with text comprehension (β =.36, p=.04). The results suggest that, firstly, Mandarin speakers show selective transfer of melody perception to English segment perception. The overlap between music abilities and L2 speech processing is more in the processing of spectral information (e.g., in musical melody and speech segments) rather than the information of intensity and duration (e.g., stress), which may be due to Mandarin speakers' reliance on a single cue (F0) in perceiving English lexical stress (Wang, 2008). Lastly, the results also indicated that music ability affected higher-level semantic processing (Featherstone et al., 2014), but knowing which semantic skills are associated with which music processing abilities will require additional exploration.

A Pronunciation Awareness Methodology: Curricular Building Blocks for Success
Oral Session IV / Room 2 - 3:00 p.m. – 3:25 p.m.
Veronica Sardegna, Duquesne University
Alison McGregor, Princeton University

Research findings regarding the effectiveness of English pronunciation instruction are inconclusive given that studies indicate improvement with different pronunciation targets after instruction or no improvement at all (see Derwing & Munro, 2015; Lee, Jang, & Plonsky, 2015; Thomson & Derwing, 2015). We argue that this inconsistency is related to the fact that L2 pronunciation teaching often lacks a theory-based methodology that translates evidence-based findings and process-oriented approaches to oral skills development. This study aims at filling this gap by examining the effectiveness of one approach—which we call "a pronunciation awareness methodology"—that integrates language awareness principles with pronunciation research findings.

Specifically, this study tested the efficacy of a pronunciation awareness methodology in a 15week English oral proficiency course. The course followed a sequence of fundamental building blocks: pronunciation awareness-raising, goal setting, explicit pronunciation instruction and strategy training, feedback, and reflection. These building blocks were integrated across the curriculum, and within task-based and project-based classroom activities. Participants' (N = 30) pre- and post-test scores indicated that they made significant improvement on English intonation, phrasal stress, vowel reduction, and linking during the course. A qualitative case study analysis of more and less successful learners' data sources, including oral presentations, out-of-class strategy choices and practice, and written reflections, revealed the factors and conditions that maximized student learning during the course. The findings suggested that, while the methodology was found to be effective for all learners, learners' choices for and frequency of out-of-class pronunciation practice differentiated more from less successful learners.

In this presentation, we describe our instructional approach, and share quantitative findings from the whole class and qualitative findings from more and less successful learners. We conclude the presentation by highlighting pedagogical implications of our pronunciation awareness methodology for enhancing learners' successful pronunciation learning through careful attention to factors that maximize learning.

A Shared L1 Benefit: Perceptual Judgments of Chinese English Speakers by Listeners from Shared and Different L1 Backgrounds
Oral Session IV / Room 3 – 3:00 p.m. – 3:25 p.m.
Meichan Huang, Texas A&M University

This study investigates the impact of listeners' first language backgrounds on their perceptions of an L2 accent. First, previous studies that hypothesized a shared L1 benefit that helps listeners understand an L2 speaker with the shared L1 background have generated mixed results (Bent & Bradlow, 2003; Major et al., 2002; Munro et al., 2006; Kang et al., 2018; Xie & Fowler, 2013). In addition, scholars have also noted that listeners may react differently to different L2 pronunciation parameters based on their specific L1 backgrounds (Crowther et al., 2015; Kang et al., 2016; Saito & Shintani, 2016).

For this study, 3-minute excerpts of lecture samples given by two Mandarin speaking instructors (M=1; F=1) were listened by three groups of 30 listeners with U.S. English, Indian, and Mandarin L1 backgrounds. Each group of listeners completed three tasks and provided quantitative measurements on the intelligibility, comprehensibility and accentedness of the Mandarin speakers. These measurements were correlated with listeners' L1 backgrounds, familiarity with an L2 accent, and language proficiency. The results were also triangulated with qualitative comments given by the listeners regarding what pronunciation features they have referenced to when making perceptual judgments. The results shed light on the ongoing discussion of possible shared L1 benefits and how they might apply to pronunciation teaching practices.

Others Make Fun of Me for Sounding Different: Multiethnic Southerners' Attitude toward L1 Accented English
Shima Farhesh, University of Memphis
Emil Ubaldo, University of Memphis
Romy Ghanem, University of Memphis

Speech perception and linguistic stereotyping have been shown to be contributing factors in the evaluation of second language speech (Rubin, 2002; Kang & Rubin, 2009). Research has included a wide range of speakers, but very few studies examined a stereotyped group of native speakers (NSs) as raters (e.g. Alford & Strother, 1992; Ryan, 1982). Additionally, female speaker productions are rarely included in the instrument. The present study investigates the L2 speech of highly proficient ESL female speakers as perceived by three ethnic groups of US Southerners.

The study recruited 158 Southern undergraduates who identified as: African-American, Anglo-American, or Asian/Hispanic/mixed ethnicities. The listeners judged the superiority and social attractiveness (Zahn & Hopper, 1985) of 4 female speakers: American, Chinese, Bangladeshi, and Saudi Arabian. Two sets of similar surveys were distributed to the listener-participants via Qualtrics. The "primed" group was asked to identify the variety they speak, memories of compliments or criticisms concerning their variety, and speech adjustments they made to sound 'more intelligible'. The "unprimed" group were not asked of these questions. After listening to each speech sample, participants evaluated the speakers' personal and social attributes using a bipolar speech evaluation instrument.

Priming did not have a significant effect on the results. However, multivariate analyses suggest that the African-American and Anglo-American groups concur with predominant findings from previous studies, that L1-accented speakers are viewed as inferior to standard American English speakers. The Asian/Hispanic/mixed race group perceived speakers differently, and rated the L2 speakers higher than the NS in some personality traits. Within the three ESL speakers, personality ratings varied across the groups of listeners.

The presentation will highlight the implications of the results in relation to international academics and professionals. Future research that includes practical methods and techniques to address this type of stereotyping in undergraduate classrooms will also be discussed.

POSTER PRESENTATIONS

Pronunciation teaching based on active listening
Poster Session #1

Elisabeth Zetterholm, Linköping University
Harald Emgård, Självbildarna
Birgitta Vahlén, Självbildarna

This study is about teaching Swedish pronunciation to adults with different L1:s. Small groups, maximum six participants, meet two times per week during a period of five weeks. The goal is an intelligible pronunciation and the focus is on prosody.

The teaching is based on active listening. The learners get a written and spoken version of a text for homework between lessons. The task is to listen to the sound file and to identify important aspects of Swedish prosody - stressed words, stressed syllables and prolonged speech sounds - and to mark them in the text. Following lesson the teacher and the participants listen together and discuss what they hear.
Recordings are made, where one participant at a time reads a text, the teacher reads the same text making corrections, and finally the participant tries to imitate the teacher. All participants listen to these recordings together, identifying different aspects of their own and the others' pronunciation. "What works fine and what is difficult to understand? Why?"

During the course there is progression both in the complexity of the texts, and in the readings from slow and very clear to natural pronunciation and tempo.

Analyses of the recordings show improved pronunciation with increased intelligibility. Evaluations show improvements in stressing of words and syllables and in prolonging the correct speech sounds. The results also show lower speech rate and correct phrasing and intonation. The participants´ confidence in speaking increases and they report fewer misunderstandings at work and in society.

Furthermore, participants mention a better understanding of spoken Swedish. Active listening to specific aspects in the language is very beneficial for pronunciation and also seems to be highly beneficial for the understanding of spoken language.

Segmental patterns and prosodic positions in Japanese speakers' English
Poster Session #2
Takehiko Makino, Chuo University

In my previous study of Japanese speakers' pronunciation of English using the segmentally annotated subset of a large-scale English Read by Japanese speech database, a substantial minority of voiceless plosive targets were found to be realized as fricatives or affricates, even though the spirantization of voiceless plosives has not been documented as a common phonological process of L1 Japanese and could not be a case of negative L1 transfer. For /p/, as much as 26 percent of its tokens are spirantized. The rate is only slightly less than the spirantization of /b/, which is a well-documented phonological process in Japanese. The spirantization was less frequent for /t/ and /k/. Because the corpus used in the previous study lacked prosodic information, the annotation of pitch accents has been added to it using a newly devised transcription scheme (based on Intonation Variation Transcription System and INTSINT) so that the interactions between syllabic and/or prosodic positions on the one hand and different segmental processes including spirantization can be explored. As far as the spirantization of voiceless plosives is concerned, the result shows that this process spans different syllabic positions and does not seem to be affected by the presence or absence of pitch accents. This implies that pitch accents produced in Japanese speakers' English is of a different type from those in L1 English, which condition segmental realization in a number of cases such as voiceless plosive aspiration and t/d-flapping.

Perception of English intonation in Japanese different proficiency levels' L2 learners of English - From the viewpoint of the humming method and intonation contour depiction
Poster Session #3

Keiko Asano, Juntendo University

Intonation perception is one of the factors that has become a barrier to learning English. especially for Japanese L2 learners. In recent years, while emphasizing communication in English speech acquisition, there has been a tendency among instructors to teach intonation, rhythm, and stress before learners have acquired the so-called articulatory phonetics of individual phonemes.

In this study, in order to analyze learners' learning situation, we conducted an experiment to examine how different proficiency levels' L2 learners of English perceive intonation. Subjects listened to the humming of sentences that was suprasegmentally substituted for English speech. They were then asked to depict the intonation contours of the sounds they heard. The audio recordings we used were based on four types of intonation patterns: Neutral, Emphasis 1, Emphasis 3, and Question, referred by Tang et al. (2017)
We used short, plain English sentences. Due to the contextual structure, some function words were added. Before starting the experiment, we explained to the participants the four patterns of intonation. We also explained that the sounds they would hear corresponded to one of those patterns. There were 16 sentences randomized for each experiment with 4 patterns × 4 sentences. There were 2 experiments in which participants listened to 32 spoken and hummed sentences. In preparation for the experiment, English sentences were read aloud and participants were given a sheet with 4 lines and asked draw the curved line that depicted the intonation contour of the spoken English sentences and hummed English sentences they heard.
The two different proficiency levels' subjects were college students. Many of advanced levels had experience being overseas. The intermediate took English phonetic course. The group were divided by TOEFL iBT scores .

The result showed that former levels of subjects were able to hear and depict all of the intonation contours except neutral. Surprisingly, hummed sentences were also well depicted by them. The intermediate levels had a difficulty depicted over all 4 patterns. The ability to depict contour does not mean that subject have an equal ability to perceive all intonation. In future a study, we will focus on doing an acoustical analysis of the relationship between humming and the perception of intonation.

Discrimination and categorical mapping of contrasts between Khmer initial consonants by American learners
Poster Session #4
Mark Sakach, Ohio University

English speaking university students were studied to determine the patterns and difficulties in the perception of Khmer speech. Two tasks were done on the subjects, (1) an initial categorical mapping task in which the subjects were asked to assign a roman character to the Khmer stimuli, and (2) an AXB discrimination task between three Khmer phoneme contrasts. The phoneme pairs for the discrimination task were selected based on the confusion ratings on the categorical mapping task. The findings of the discrimination task supported the Perceptual Assimilation Model as proposed by Best et al. (2001). The combined data for the two tasks is applicable to the development of High Variability Phonetic Training for English speaking learners of Khmer. The complex nature of Khmer phonology lends itself to phonetic categorization tasks. Because of the variety of phonemes in Khmer, the categorical mapping onto Roman characters by English speakers can guide further research on phoneme perception.

Automatic speech recognition as a way to develop Taiwanese EFL learners' pronunciation: Learning outcomes and learners' perceptions.
Poster Session #5

Wen-Hsin Chen, National Taipei University of Technology
Solene Inceoglu, Australian National University
Hyojung Lim, Kwangwoon University

Previous research has shown positive effects of Automatic Speech Recognition (ASR) on the development of second language (L2) pronunciation (Liakin, Cardoso, and Liakina, 2017) and on learners' self-perception of their intelligibility (Mroz, 2018). McCrocklin (2016) also noted that ASR can help foster learners' autonomy by providing flexible and accessible pronunciation practice. Research on the potential benefits of ASR on L2 pronunciation learning and learners' engagement is, however, still scant. Accordingly, the aim of this study is to investigate the effectiveness of ASR in terms of segmental and fluency development, and to explore Taiwanese English-as-a-foreign-language (EFL) learners' use of and attitude towards ASR.

Participants were 89 Taiwanese university students enrolled in low-intermediate English courses. All learners completed three oral production tasks (i.e., read aloud, minimal pair list, and picture description) as a pretest, and filled-out a pronunciation attitude questionnaire and a motivation questionnaire. A training group of 47 students took part in six sessions of autonomous ASR practice over a period of three weeks. For each session, participants used the ASR on their mobile phones to record a short reading passage (average word length = 104), four sentences with minimal pairs, and four sets of /i/-/ɪ/ and /ɛ/-/æ/ minimal pairs. The six ASR practice sessions were done outside of class as a way to foster learners' autonomous learning, and participants used a screencast app to video record their practice before sending the videos to their instructors. One week after treatment, participants completed the posttest (same tasks as the pretest) and filled-out an exit survey in which they reported their experiences with using ASR in English.

Results of segmental errors and fluency will be presented along with reports from students' perceptions of ASR as a tool to practice pronunciation. Implications for pronunciation teaching and learning will be discussed.

Chinese ESL students' pragmatic difficulties in using English intonation
Poster Session #6

Moon Kyoung Cho, Ohio University
Mark Sakach, Ohio University
An Nguyen, Ohio University
Lara Wallace, Ohio University

Intonation plays a more important role in emotional communication in English than in some other languages. Producing the emotional (intentional) meanings of intonation, therefore, presents a challenge for some English as a Second Language Learners especially when their first language intonation systems significantly differ from those of English. The present study investigates the pragmatic difficulty that Chinese ESL learners experience in using English intonation to express emotion. The study analyzes the phonological (the contour of intonation) and non-phonological features (pitch, intensity, and duration) of 40 Chinese ESL students' English intonation. A combination of the Autosegmental Matrical Model and Halliday's tone models are adapted to analyse intonation patterns. The non-phonological acoustic correlates are measured by Pratt on the syllable and utterance levels. The study comprises two tasks: (a) a production task and (b) an interview about participants' past experience. During the first production task, participants are asked to produce brief English declarative sentences (e.g. 'she is happy') to measure the baseline acoustic features. The second task, on the other hand, asks participants to talk about the happiest and saddest day of their life in English to examine the use of intonation in a more natural setting. Chi-square tests are used for the analysis of the categories of the intonation patterns, and a series of independent t-test and one-way ANOVA tests are used for analysing the non-phonological acoustic correlates. The results of this study can provide insights into the areas where Chinese ESL learners experience pragmatic difficulties in using English intonation due to L1 prosodic transfer.

Pronunciation features and comprehensibility/intelligibility of English as a lingua franca: An initial investigation
Poster Session #7
Sheryl Cooke, University of Jyväskylä; British Council, China

This poster presents one component of a PhD study situated at the intersection of socio-linguistic factors related to English as a Lingua Franca (ELF) and technological advances within language assessment that presents particular challenges for testing and communicative language teaching (McNamara, 2014). Of primary concern for the wider study are the potential implications for pronunciation teaching, learning and assessment should the development of automated assessment lead to the encoding of accent or variety bias and/or establishing a privileged norm against which pronunciation is measured. Fundamental to guarding against this is an understanding of the underlying construct of pronunciation as it contributes to comprehensibility/intelligibility within a real-world, ELF context of use.

This poster is a preliminary overview of a small-scale study that aims to identify linguistic measures (primarily aspects of pronunciation) that correlate with comprehensibility by replicating the Trofimovich and Isaacs (2012) study in methodological design and overall focus. The original study focused on samples of French L1 learners of English and considered differences between novice listeners and experienced raters. My study focuses on 20 speech samples of Chinese L1 learners of English and, in the context of ELF where most conversations do not include a native speaker (NS), raters include 48 NS and non-NS novice listeners to explore whether there is a difference in features that affect the comprehensibility judgements of these two groups of listeners. The poster describes the mixed-methods research design which includes quantitative tools and coding of qualitative data (notes and interviews), the preliminary outcomes of the investigation, as well as how these will inform the broader exploration of pronunciation criteria underlying ELF comprehensibility/intelligibility for the purposes of automated test design. The discussion will also be of interest to teachers, learners and researchers of ELF pronunciation more broadly.

Southwestern Mandarin speakers' production of English word-final /l/ and /n/
Poster Session #8

Wei Zhang, Qufu Normal University
John Levis, Iowa State University

A typical characteristic of Southwest Mandarin is /n/ and /l/ confusion (e.g., light-night), which influences /n/ and /l/ pronunciation in English. Previous studies have focused on word-initial /n/ and /l/ (Lee, 2017; Li, 2013; Zhang, 2007). However, there has been little discussion of coda /n/ and /l/ pronunciation for English learners from Southwestern Mandarin. Standard Chinese does not allow /l/ in coda position, only allowing two consonants in word-final position, /n/ and /ŋ/. And in speech, final nasals are often realized through the nasalization of the preceding vowel, resulting in a strong tendency toward CV syllable structure in spoken Chinese. As a result, it is unlikely that /n/ and /l/ will be confused in coda position. However, coda /n/-/l/ remains a problem in English because of its high functional load (Catford, 1987), suggesting the importance of Chinese speakers of English pronouncing final /l/-/n/. This study investigated the production of word-final /n/ and /l/ by 25 speakers of Southwestern Mandarin who recorded 56 English words with word final /n/ or /l/ twice each, for a total of 2,800 productions. All tokens were coded for accuracy by the researchers. The results show that Southwestern Mandarin speakers did not consistently produce either word-final /n/ or /l/, though the word-final /n/ had a higher accuracy than word-final /l/. There were different mispronunciation patterns for the sounds. Mispronunciations of /n/ included, in order of frequency, deletion, [ɹ], [ŋ], and [m], according to the vowel environment. In contrast, final /l/ was usually deleted and replaced by a vowel. Other replacements included [ɹ] and [w].

The results suggest that final /n/ and /l/ should prioritized in pronunciation teaching to Chinese learners because of the potential for miscommunication in English. Teachers, especially Chinese EFL teachers, should also account for the seriousness of these errors in designing instructional materials.

What did you say?: Using EdPuzzle and talk show interviews for intonation patterns and prominence practice
Poster Session #9

Edna Lima, Ohio University
Zoe Zawadzki, Ohio University

It is undeniable that suprasegmentals are critical to speech intelligibility and should be part of pronunciation instruction. Intonation, a suprasegmental, plays a key role in successful communication because it affects how speakers want to be understood but also how they want to be treated by others (Pickering, 2018). Depending on their use of intonation, speakers can be misjudged or misunderstood. For instance, the constant use of level tones during a lecture may lead a speaker to be perceived as uninvolved (Pickering, 2001). Also, not using prominence properly to highlight key information in longer stretches of speech may affect how much information listeners can process (Hahn, 2004).

Research shows that pronunciation training is effective (Lee, Jang, & Plonsky, 2015); thus, raising awareness of pronunciation features is key for improvement (Mitrofanova, 2012; Verdugo, 2006) and can be done through a variety of pedagogical techniques such as explicit instruction and focused tasks, which allow learners to focus on specific targets one at a time. Authentic videos can be used as the basis for focused tasks, as they are engaging and representative of real language use in a variety of contexts.

This poster presentation will outline a lesson for learners to improve their perception and production of intonation patterns and prominence using Edpuzzle. First, the teacher raises awareness of these features through a short lesson. Next, learners watch part of an interview video with former President Barack Obama talking to Jimmy Kimmel about his daily life. The video is hosted on Edpuzzle and includes quizzes throughout to foster learners' perception of intonation patterns and prominence. Then, learners do a voiceover of the video on Edpuzzle, which allows for semi-structured production practice of the targets. Finally, learners exchange their voiceover recordings with each other for peer feedback based on a simplified rubric.

Information structure in university lectures in English as a foreign language in Argentina
Poster Session #10

Florencia Giménez, Universidad Nacional de Córdoba, Argentina

University lectures have long been the focus of research due to their paradigmatic importance as the main channels of instruction at this educational level. In the context in which this study was carried out, the teacher and translator training courses at the School of Languages, Universidad Nacional de Córdoba, Argentina, English is the medium of instruction. Although this is very convenient for students, L1 Spanish speakers, since it provides them with opportunities to develop their receptive and productive skills in the foreign language, it poses a great challenge on professors, also L1 Spanish speakers, who need to be linguistically competent enough so as to provide students with a good model in the foreign language and to assist learners to meet the challenge of comprehension. This expertise also comprises the level of phonology, which, as the syntactic conventions, can help professors convey meanings and students interpret them. The aim of this presentation is to share the main findings that derive from a phonological analysis of two lectures judged as efficient by Spanish-speaking university students of English. In this paper, the analysis revolves around the structure of information in discourse. Within the model of Discourse Intonation (Brazil 1997), this function is realized through the subsystems of prominence and tones. The former is used to highlight important information, while the latter are exploited to signal the nature of that information. The analysis is matched against characterizations of efficient lecturers developed on the basis of the behavior of native speakers of English. The findings, which are discussed in the light of previous research, can be of great help to Spanish-speaking university teachers who would like to be well-equipped to face the challenge of teaching in English at university level.

Explicit pronunciation instruction and nonnative-speaking teachers: A case study
Poster Session #11
Joshua Gordon, University of Northern Iowa

Research in teacher cognition of second language (L2) pronunciation instruction has demonstrated that teacher training enhances pronunciation instruction (Baker, 2014), that many teachers rely on controlled techniques like repetition (Baker, 2014; Hismanoglu & Hismanoglu, 2011), and that many teachers (both, native and nonnative) do not feel confident teaching pronunciation because of lack of preparation in different areas (Baker & Murphy, 2011; Couper, 2016, 2017; Murphy, 2014). Though research has suggested that nonnative-speaking teachers (NNSTs) are as effective in pronunciation instruction as their native-speaking (NSTs) counterparts (Levis et al., 2016), the knowledge base of NNSTs remains mostly unexamined (Couper, 2016). The question then still remains as to what it is that constitutes the knowledge base that allows NNSTs to teach pronunciation.

This case study investigated the way a NNST approached explicit pronunciation instruction in an EFL context. It investigated two different questions: (1) How does an experienced NNST approach explicit pronunciation instruction in an EFL classroom? (2) What constitutes the knowledge base that allows a NNST to implement explicit pronunciation instruction in a classroom? Through the use of qualitative research methods (e.g., classroom observation, audio/video recordings, semi-structured and stimulated-recall interviews), and Shulman's (1987) Knowledge Base conceptual framework as a basis, the study uncovered how a NNST utilized error-correction techniques, phonetic rules, phonetic metalanguage, and the learners' L1 to implement explicit pronunciation instruction. At the same time, the study portrays how this NNST's knowledge of phonetics/phonology (content knowledge), knowledge of content delivery (pedagogical content knowledge), and familiarity with the learners' L1 (knowledge of learners' background) were interrelated in the use of different techniques for explicit pronunciation instruction. These findings are discussed in terms of their implications for teacher education programs to help maximize NNSTs' pronunciation-instruction skills, particularly considering the call for major involvement of nonnative models in L2-pronunciation teaching (Murphy, 2014).

Improving pronunciation in spontaneous speech? A comparison of two instructional methods
Poster Session #12

Zoie Hancock, Indiana University
Brian Rocca, Indiana University
Joshua Lee, Indiana University
Isabelle Darcy, Indiana University

While mounting evidence from research suggests that "pronunciation instruction works" to globally improve intelligibility and fluency (Lee, Jang & Plonsky 2014), research publications often remain superficial in their explanations of how exactly pronunciation instruction was implemented, and little research has experimentally compared methods. The lack of clearly defined principles behind the reported effectiveness of methods, combined with the fact that only few such studies are classroom based, makes it difficult for teachers to envision ways to apply these methods in their own classrooms.

This presentation first reviews two fundamental components of pronunciation improvement (automatization and generalization to spontaneous speech), and presents their psycholinguistic underpinnings. Second, we present the results of an experimental classroom based study comparing the effectiveness of two teaching methods in terms of how well they foster these two components: explicit instruction (e.g. Saito, 2012) and communicative approaches that go beyond explicit instruction (i.e. ACCESS, Trofimovitch & Gatbonton, 2006).

We administered instruction to six classes in an ESL program. Two received no specific pronunciation instruction (control), two received explicit instruction only (explicit), and two received explicit + communicative ACCESS-type instruction (communicative). All instruction lasted 7 weeks, teachers were recorded to verify that instruction was implemented as planned.
Instruction was provided, among others, about thought groups, word stress, and vowel reduction. These elements are the focus of a rating task given to 6 trained raters, who rate the pre- and the post-instruction recordings (reading and spontaneous speech) of the students.

We hypothesize that the communicative group will outperform the other groups at post-test in spontaneous speech production (for the three tested elements). Data collection is still in progress, as the last recordings will be obtained in early May. Ratings will take place then.
The results will help outline clear psycholinguistic principles behind the effectiveness of specific pronunciation instruction methods.

A systematic approach to integrating pronunciation teaching into all classes of the curriculum
Poster Session #13

Shem Macdonald, La Trobe University
Margaret Corrigan, Carringbush Adult Education, Melbourne Australia
Elizabeth Keenan, Carringbush Adult Education, Melbourne Australia

Research has indicated that explicit pronunciation instruction can be beneficial for English learners in the development of comprehensible speech (Gordon & Darcy, 2016), that it is important this instruction start at beginning-level classes (Darcy, Ewert, and Lidster, 2012), and be integrated into the curriculum (Jones, 2016). However, there is very little research to guide organisations wanting to develop a centre-wide approach for integrating pronunciation teaching into a curriculum.

In this paper, we examine the development of a systematic, centre-wide initiative to integrate pronunciation into all beginner-level classes within an adult English language centre. We report on the evidence-based development of the syllabus and upskilling of teachers in the area of pronunciation teaching. We argue that the development of teacher skills is an essential element of the creation of a culture of sustained pronunciation teaching and learning. Details are provided about what such a centre-wide pronunciation culture looks like, along with an explanation of how this has been nurtured and continues to grow.

We also report on feedback from both the teachers and learners involved in this program and professional development transition. Interviews with a group of the participating teachers provided insight into their views and experiences of the process, and highlighted some of the challenges they faced as well as what helped them become more confident teachers of pronunciation. Through interviews with a group of the learners involved, we gained an understanding of their growing confidence and ability to notice their developing pronunciation skills. Implications for teacher professional development around pronunciation and the integration of pronunciation throughout a program will be discussed.

An illustrated taxonomy of online CAPT resources
Poster Session #14
Lynn Henrichsen, Brigham Young University

A decade ago, Derwing envisioned "utopian goals" for the field of second-language (L2) pronunciation teaching and learning. Among those goals was "more development of easy-to-use and useful software" (2010, p. 30). Since then, great progress has been made in computer-assisted pronunciation teaching (CAPT).

The earliest manifestations of CAPT operated on either integrated hardware-software workstations or desktop computers. Today, increasing numbers of language learners and teachers rely on online tools (websites or mobile apps). Therefore, this presentation will concentrate on L2 pronunciation teaching/learning resources accessible online via personal computers, tablets, or smartphones.

This presentation will begin by reviewing how CAPT has long promised many potential benefits—some of which (such as automatic speech recognition [ASR] and targeted, corrective feedback) are only now being realized. It will then explain how current online CAPT resources employ various sensory modalities, give feedback of different types, and use a variety of instructional activities. It will also lay out the basic principles and the research base of seven categories of CAPT resource types: 1. text and audio only, 2. listen and repeat, 3. listening discrimination [minimal pairs], 4. visual articulatory displays, 5. visual acoustic displays, 6. ASR, and 7. corpora. To illustrate these classifications, it will provide information about (and links to) actual online resources within each of the seven groupings.

Effects of phonological structure on perceived rate of English by Japanese and English speakers
Poster Session #15
Yoshito Hirozane, Mejiro University

Osser and Peng (1964) reported that most Japanese speakers believe that native English speakers speak more rapidly in English than native Japanese speakers speak Japanese. They assumed that this belief comes from the differences in syllable structure between the two languages. On the other hand, Pfitzinger (1998) showed that the rate of German perceived by German speakers is best predicted by the product of phone rate and syllable rate. If his model works for English rate perception by Japanese speakers, phonological structure will have nothing to do with rate perception. In this study, it was tested if Pfitzinger's model works for or phonological structure affects English rate perception by Japanese and English speakers.

Thirty-six native Japanese speakers and 24 native English speakers participated in the experiment. The stimulus tokens were four synthesized sentences named Hi, Soccer, Birds, and Students. The monosyllabic Hi and the polysyllabic Soccer contained no consonant clusters while the monosyllabic Birds and the polysyllabic Student contained consonant clusters. The four stimulus sentences were paired and randomly presented to the participants. Then, they were asked to indicate which stimulus sentence of a given pair sounded faster or slightly faster or whether both sounded the same in rate.

Both Japanese speakers and English speakers perceived the polysyllabic Soccer and Students as significantly faster than the monosyllabic Hi and Birds. Neither Japanese speakers nor English speakers perceived significant difference in rate between the polysyllabic Soccer and Students. But only Japanese speakers perceived the monosyllabic Hi containing no consonant clusters as significantly faster than the monosyllabic Birds containing consonant clusters.

Pfitzinger's model worked for English rate perception by English speakers, but it did not always work for Japanese speakers. Phonological structure did not seem to affect English rate perception by Japanese speakers, either.

Enhance pronunciation through task repetition--Bridging laboratory-type and class-interaction speaking tasks in teaching Chinese prosody
Poster Session #16
Jiang Liu, University of South Carolina

The term 'enhanced repetition' refers to the second performance that a learner produces after having had the opportunity to engage in some sort of cognitive activity related to their first run (Lynch, 2018). The current study implements the 'enhanced repetition' in teaching prosody of Chinese for the beginner level L1-English L2-Chinese learners. When native English speakers learn Chinese, many tend to produce sentences in a bottom-up way with more pauses than native Chinese speakers (Chen, 2013). In other words, learners ranging from beginner to advanced level have a tendency of speaking character by character or word by word, thus, causing two types of unnaturalness: (1) hyper-articulation of tones; (2) non-nativelike prosodic features (e.g., intonation, stress, pitch accent, final lengthening, boundary cue). To help learners to overcome these challenges, we developed a curriculum that integrates a serious of speaking tasks that aim to make a list of phrases and sentences with specific communicative functions internalized/familiarized by learners as efficient as they can. In class, learners analyzed the discourse of dialogues matching the communicative functions to a list of expressions and practiced the expressions through class-interaction. In written homework, learners needed to match the expressions to their corresponding communicative function. Then in a recording homework using VoiceThread, learners were elicited to produce the target expressions as responses to audio or text prompts. Finally, in the chapter test, the grammar and communicative functions of the target expressions were tested. By doing this as a cycle making learners familiarized with these expressions, we then provide pronunciation clinic to highlight the tonal coarticulation and prosodic features of those (memorized) sentences. Then we asked learners to record the target expressions for a second time. We found the naturalness of the target expressions produced by learners improved significantly based on the acoustic measurement and native speakers' judgment.

A meta-analysis of the impact of interventions on improving the second language comprehensibility
Poster Session #17

Xueyan Hu Texas A&M University
Brandon Cooper Texas A&M University
Ginessa Payne Texas A&M University
Quentin Dixon Texas A&M University
Li-Jen Kuo Texas A&M University

While the effectiveness of second language pronunciation instruction has been investigated in previous reviews, none of these have examined the effectiveness of instruction based on the outcome of comprehensibility, which is one of the ultimate goals of second language instruction. This meta-analysis aimed to examine the effectiveness of instructional interventions that aim to improve the comprehensibility of speech, either from the perspective of speakers' productions or listeners' perceptions.

A systematic search and screening yielded 22 studies from peer-reviewed journals, conference proceedings, and dissertations. In these studies, 425 participants received treatments of various kinds while 294 participants were in control or comparison groups. A meta-analysis of three subsets of study designs generated a significant effect size: treatment-control ($g=0.307$); treatment-comparison ($g=0.38$); pretest-posttest ($g=0.13$). Significant heterogeneity was found and modeled using moderator analyses with several variables. The results revealed that the task type of speech production (controlled or spontaneous), intervention subjects (L2 speakers or native speakers as listeners), instructional tools (software or traditional materials), instructional methods (explicit or implicit), as well as journal publications (published or unpublished studies) were significant moderators of effect sizes.

These results are interpreted with respect to their practical and pedagogical relevance. The findings are also discussed in comparison with other reviews of second language pronunciation instruction (e.g., Lee, Jang, & Plonsky, 2014; Saito, 2012). Pedagogical recommendations about how to improve comprehensibility from both the speaker's and the listener's perspective, as well as the implications for the future research are also provided.

Perception of prosodic boundaries by Korean English learners
Poster Session #18

Suyeon Im, The Hong Kong Polytechnic University
Hyunkee Ahn, Seoul National University

There have been a large number of studies on the problems in L2 listening comprehension, but little research has investigated the issue of difficulties in L2 prosody acquisition. One of the challenges that Korean English learners may encounter is the acquisition of prosodic boundaries in English. Korean has three types of prosodic boundary–accentual phrase, intermediate phrase (ip), and intonational phrase (IP), while English has two–ip and IP. As there are more types of prosodic boundary in Korean, native Korean speakers (NKS) may be more sensitive to perceive prosodic boundaries than native English speakers (NES). In this study, we, comparing with NES, investigated the perception of English prosodic boundaries by NKS on the assumption that NKS are likely to perceive prosodic boundaries more than NES due to their L1 influence. Thirty Korean learner of advanced English and thirty-five NES were asked to listen to a public speech in English and mark prosodic boundaries on its transcript. Two linguistic experts labeled the prosodic boundaries of the speech for the comparison. A generalized linear mixed model and a post-hoc ANOVA were run for the statistical comparison. The results showed that NKS significantly differed from NES in marking IP boundaries as expected. For judging ip, there is no significant difference between the groups although NKS tend to mark ip more frequently than NES. Therefore, our study supported the hypothesis that NKS perceive more prosodic boundaries than NES when listening to English. This study also implies that, comparing with NES, NKS tend to be sensitive to prosodic boundary cues in the heard English speech, which may play a role of L2 listening difficulty. To expand our understanding of the influence of L1 prosody to L2 prosody acquisition, we will discuss the necessity of examining NKS production data of English in terms of prosodic boundary (299 words).

Trainee teachers' and in-service teachers' attitudes towards the importance of phonetic instruction in teaching English as a second/foreign language
Poster Session #19
Anna Jarosz, University of Łódź, Poland

Teacher cognition and teachers' professional identity are a relevant issue in pronunciation instruction and in general education (Korthagen, 2004; Ivanovaa and Skara-Mincane, 2016). They unquestionably affect learning outcomes (Murphy, 2014; Sardegna, in press). Studies investigating teachers' perceptions, beliefs and attitudes to pronunciation instruction point to teachers' dissatisfaction with the training they received or insecurity with regard to their own competence in the field (Bradford and Kenworthy, 1991; Burgess and Spencer, 2000; Henderson et al., 2012). Most teachers perceive intelligibility as the main goal of pronunciation instruction (Breitkreutz, Derwing and Rossiter, 2001; Foote, Holtby and Derwing, 2011), they also place pronunciation relatively high in the rank of importance in the learning process (Henderson et al. 2012) and realise pronunciation needs to be integrated within all-skill English courses, systematically planned and structured, and not only remedial or reactive to errors (Kelly, 2000; Szpyra –Kozlowska, 2015).
The study investigates perceptions and beliefs of two groups: MA students, who chose the pedagogical track so as to become English teachers, and in-service English teachers with experience varying from 10 to 23 years. The first group has completed a 30-hour pronunciation instruction methodology course, whereas the other group was randomly recruited from two public secondary institutions. The measurement includes a Likert-scale questionnaire and semi-structured interviews as a follow-up. The questionnaire explores the attitudes of both the groups to L2 pronunciation instruction as well as their perceptions on the relevance of pronunciation, their own pronunciation goals as (future) teachers and also as speakers of English. The interviews provide a more profound insight into the participants' attitudes and beliefs. The study results indicate slightly higher trainee teachers' pronunciation awareness than that of in-service teachers. Although qualitative rather than quantitative in its nature, the results contribute to pedagogical implications with respect to teacher training programmes.

Phonetic features of the English alphabet produced by Japanese learners: A comparison between elementary school children and university students
Poster Session #20

Akiyo Joto, Prefectural University of Hiroshima
Yuri Nishio, Meijo University

This paper examined the phonetic features of the English alphabet pronounced by Japanese elementary school children and university students, providing some suggestions for teaching the sound system of the English language. The alphabet is currently taught during compulsory elementary education in Japan, and consists of approximately half of the phonemes of the English language. However, none of the previous studies on English phonetics have dealt with the sounds of the alphabet. Five third-year elementary school students (aged 9) who participated in this study were recorded pronouncing the alphabet, before and after four alphabet lessons. There were two 45-minute lessons a month. In the lesson, the teacher modeled the pronunciation of the alphabet by showing each letter and had the students repeat them twice. Then, the students sang the alphabet song and did games focused on the alphabet. Five university students were recorded pronouncing the alphabet without any specific alphabet practice. The recordings of both groups were transcribed into IPA by the researcher and acoustically analyzed. It was found that the alphabet practice contributed to improving the consonants in C and F, the diphthongs in A and K, and the consonant cluster in X. However, both groups had much more difficulty pronouncing the consonants in G, H, J, L, V, Y, and Z, and the pronunciation of R and W, with an overall mispronunciation rate of 94.4 percent. Learners' pronunciation of them did not improve after the lessons. All speakers substituted /dz/, /dz/, or /z/ for /dʒ/ and /z/ in pronouncing G, J, and Z. The aspirated plosives in P and T were also difficult for all speakers: the mean VOT values were 26.0ms, shorter than native speakers'. These results suggest that there should be more focus on teaching pronunciation of the alphabet in the early stages of English learning

Experiences in an L2 pronunciation tutoring project: Using narrative analysis to explore theory-practice connection

Poster Session #21
Tim Kochem, Iowa State University
Agata Guskaroska, Iowa State University
Tom Elliott, Iowa State University

Through the years, we see the focus on second language (L2) pronunciation instruction swinging back-and-forth much like a pendulum, from extremely important to being nearly unteachable (Morley, 1991). More recently we see the pendulum swinging towards a renewed focus on L2 pronunciation in language classrooms with an increasing number of instructors claiming to have received explicit training in the area (Foote, Holtby, & Derwing, 2011). As a result, some researchers (e.g., Baker, 2014) have explored teacher cognitions of in-service language teachers and the role that explicit L2 pronunciation pedagogy plays in the teaching of pronunciation to language learners. However, a dearth of information exists concerning how teacher trainees interact with this information as they gain theoretical knowledge through coursework or professional development and then translate it into practical application. The current study seeks to address this gap in the literature by using narrative inquiry to track the experiences of two teacher trainees as they completed a 4-week tutoring project as part of a L2 pronunciation pedagogy course. The three main findings of the study include the role past language learning and teaching experiences play, the convergence and divergence of new and existing knowledge and experiences, and how time is perhaps the greatest factor when providing effective L2 pronunciation instruction. The implications from this study suggest future L2 pronunciation pedagogy courses, when possible, include a hands-on fieldwork assignment, provide plenty of materials and resources for the teacher trainees to use or adapt for use, and stress the role of assessment in L2 pronunciation.

The effect of listener background factors on evaluating Korean-accented speech intelligibility
Poster Session #22
Soo-Hyun Koo, Seoul National University

While clarifying the relationship between intelligibility and accentedness, many studies have consistently investigated the characteristics of foreign-accented yet intelligible L2 speakers for several decades. Some studies showed that certain listener-related factors play important role to enhance non-native speakers' (NNS) speech intelligibility. Some of the known factors are shared L1 between interlocutors (Bent & Bradlow, 2003), L2 accent familiarity (Gass & Varonis, 1984), and L2 teaching experience (Koo, 2018). However, little is known about the relative weight of these listener background factors. In addition, the effect of listeners' professional experience as L2 teachers on NNS speech intelligibility has relatively been understudied, leaving some room to wonder which variable will be the optimal indicator to represent such construct. The purpose of the present study is to investigate which listener background factor is related mostly with enhanced intelligibility of Korean-accented English speech. Another purpose is to test the credibility of three variables in measuring listeners' L2 teaching experience. The present study conducted online-based speech perception survey, which examined 120 listener participants' Korean-accented English speech intelligibility through transcription task. The survey also included a set of questions about participants' language background, accent familiarity and L2 teaching experience. The construct of teaching experience was operationalized into three different versions of measurable indices; higher education degree related to TESOL, L2 teaching expertise in various institutions, and TESOL certificate ownership. These three variables were chosen in partial reflection of Korean English institutions teaching personnel preferences. Stepwise multiple regression analysis yielded the following rank amongst listener factors; Major > Familiarity towards Korean accents > Listeners' L2 proficiency > Listeners' L1. In addition, only listeners major found out to be valid indicator for listeners' L2 teaching experience. Findings of the present study suggest meaningful theoretical and pedagogical implications for teaching and learning of L2 pronunciation.

¿Qué se [s]abe [ʂ]abe [ʂθ]abe sobre el impacto de rasgos sociales en el procesamiento de una segunda lengua? Testing L2 dual-route encoding an immersion context
Poster Session #23
Angela Krak, University of Pittsburgh
Marta Ortega-Llebaria, University of Pittsburgh

How do social variables such as prestige or stigma modulate L2 comprehension and production? Recent L1 research [1] has challenged the previous model of speech processing and encoding, suggesting instead a dual-processing model that recognizes the weight of social variables on speech perception early in processing. For example, [2] show that words spoken in a prestigious dialect are retrieved faster and deeply encoded, even by L1 speakers of less prestigious varieties. These findings influence L2 learners because deep encoding fosters enhanced phonetic representation and more verbatim memory, as opposed to gist recall [2]. To our knowledge, no research has investigated if and how social variables augment deep encoding in L2 phonetic representations or influence speech production.

To examine these questions, we test the perception of Seville local varieties by advanced L2 Spanish students spending four weeks in an immersion program. A pre-test and post-test consisting of the four tasks in Table 1 will be delivered to twenty-five L2 Spanish participants and a control group of native Sevillians. Materials in each task contain words with three allophones of /s/, produced by native speakers and associated with different perceived prestige: Madrid (standard, [s]) Seville urban (regional standard, [ʂ]) and Seville outskirts (stigmatized, [ʂθ]) [3].

We anticipate social evaluations of accents by L2 learners to better align with those of native speakers after four weeks in Seville. If attained, L2 results should be consistent with previous findings in L1, with learners allocating more attention to social variables associated with prestige [1]. Additionally, L2 students are predicted to demonstrate delayed reaction times and more false memories with the stigmatized variety. The anticipated results have direct implications to L2 global intelligibility because to fully understand how students acquire and produce dialectal phonetic variation, we first must understand how this is encoded in their mental lexicon.

The relationship between L2 speech comprehensibility and fluency development
Poster Session #24
Shuhei Kudo, Waseda University

In a second language (L2) pronunciation and pedagogical research field, comprehensible L2 speech has been viewed as a realistic and attainable goal for L2 learners to perform successful communication (e.g., Saito et al., 2016). L2 speech comprehensibility, one of the global constructs for describing L2 speech, is generally associated with a range of linguistic variables such as prosody, fluency and vocabulary (Saito & Akiyama, 2017). Especially, some empirical studies (e.g., Akiyama & Saito, 2016; Derwing et al., 2008) suggests that L2 speech comprehensibility development may come from fluency gain. However, additional empirical studies are required to be conducted to understand the comprehensibility as a global construct of L2 speech. Furthermore, although previous studies used a native speaker's benchmark for comprehensibility rating, non-native speaker's evaluation will be needed in a recent situation of English as an international language.

To investigate the relationship between L2 speech comprehensibility and fluency, this study focuses on the correlation of the gain score of these two variables. This study recruited 24 Japanese university students as speakers, and 22 non-native English speakers as speech raters (10 Japanese, five Chinese, five Korean, one Vietnamese). English monologue speeches were elicited from the speakers two times, at the beginning and the end of one semester, and then the listeners rated their speeches using a 9-point Likert scale of comprehensibility (Munro & Derwing, 1995). After that, the gain score of their speech rate and their comprehensibility was calculated. The results of correlation analysis showed that the gain score of these two variables were strongly correlated ($r = .80$, $p < .001$), indicating that the development of comprehensible L2 speech may be highly connected with that of L2 speech fluency as previous studies suggested (e.g., Akiyama & Saito, 2016; Derwing et al., 2008).

Students' perceptions on ITAs' accentedness and teaching effectiveness
Poster Session #25

Seda Acıkara, Northern Arizona University
Leonardo Guédez, Northern Arizona University

In the present study, we are interested in studying native speakers' perceptions of accentedness and body language of international teaching assistants (ITAs) and whether there is any relationship between these features with classroom environment, and teaching effectiveness. We will be focusing on intact groups of students enrolled in reading and writing university courses whose instructors are international teaching assistants in a university in the United States.

With the increasing number of ITAs as instructors of undergraduate level courses, there has been a growing interest about their teaching effectiveness. Some students report negative attitudes towards having a nonnative speaker of English teacher (NNEST) in reading and writing courses. In such courses, there is a special emphasis on getting the message transmitted effectively, which means there might be more demands on the communication skills of instructors, as opposed to courses in other areas such as physics or engineering, which focus more on mathematical thinking and logical reasoning. This is why having an NNEST's accentedness and use of body language may constitute a debilitating factor.

There have been several studies focusing on this area by scholars such as Pickering, Kang, Gorsuch, and Rubin. Some of the results of their studies indicated that students might judge NNESTs to be "poor teachers" due to their accents (Rubin & Smith, 1990) or that students are reluctant to have ITAs as instructors in math, physics, and chemistry classes (Gorsuch, 2016). Other findings suggest that ITAs' self-disclosure about their culture, integrating interpersonal communication strategies and incorporating interactive instructional strategies have a positive outcome on their rapport with American students (Meyer & Mao, 2014). With this in mind, our focus will be on analyzing ITA's classroom environment and teaching efficiency in undergraduate level reading writing courses.

The effects of inconsistency of speech stimuli in speech perception research
Poster Session #26

Megan Moran, Northern Arizona University
Okim Kang, Northern Arizona University
Alyssa Kermad, California State Polytechnic University, Pomona

In speech perception research, it is common for listeners to be asked to listen to a speech stimulus and then evaluate it on constructs such as comprehensibility, accent, teaching effectiveness, oral proficiency, credibility, and even demographic and personality traits (Bayard et al., 2001; Kang, 2012; Lev-Ari & Keysar, 2010; Munro & Derwing, 1995a). However, throughout the duration of this research, the length of the speech stimulus has varied greatly, ranging from 4.5 seconds (Derwing & Munro, 1997) to up to 4 minutes (Rubin & Smith, 1990; Rubin, 1992). Two preliminary studies (Authors, 2018; Authors, 2019), using a combination of 2-, 10-, 30-, 60-, and 120-second speech files, found that the length of the stimulus does, in fact, influence listener ratings. Specifically, ratings of comprehensibility, accentedness, teaching ability, and proficiency (comprised of pronunciation, grammar, and vocabulary) were generally viewed as worse as time progressed; the shortest file in each study had the most favorable evaluations. The current study extends this research. It includes four speech stimuli lengths (10s, 30s, 60s, and 120s) which are presented in random order to native and nonnative English listeners. The listeners evaluate each of the speech files on comprehensibility, accentedness, teaching ability, and proficiency. Additionally, an extensive linguistic analysis (i.e., pronunciation, vocabulary, and grammar) will be conducted on each of the speech files. Repeated measures ANOVAs and pairwise comparisons will show any differences in speech stimuli length on listener judgments; multiple regressions will then determine the potential effects of speech properties on the evaluations. Implications of this study include more careful methodological decision-making regarding speech stimuli length in speech perception studies, balancing consistency with economy of time. Further, this study, combined with the two previous studies, will serve as a guiding resource for researchers as they create/select their speech stimuli.

Written vs. video feedback on L2 Spanish learners' self-perception of oral improvement, motivation, and communicative goals
Poster Session #27

Caroline Cuellar, Appalachian State University
Alyssa Kermad, California State Polytechnic University, Pomona

With constant advances in technological tools, the use of digital feedback via collaboration and screencasts has been found to be preferred by many students due to its personal nature and accessibility (Ferris, 2014; Moore & Filling, 2012). While research has investigated teleconferencing tools to provide live feedback during online communication (see Monteiro, 2014), research on video feedback via FlipGrid for oral improvement is scarce. To respond to this void, the current study evaluated written and video feedback on second language (L2) Spanish learners' self-perception of their oral improvement, motivation, and communicative goals. The participants, 32 high school Spanish students (in two Spanish sections of n = 17 and n = 15), underwent two rounds of oral assessments during which they recorded their speech via FlipGrid. Each section alternatively received video feedback and written feedback by the Spanish professor who rated their oral proficiency (i.e., task completion, comprehensibility, level of discourse, fluency, vocabulary, and language control) using the PALS (Performance Assessment for Language Students) rubric. After each round of feedback was given, data was collected to assess students' self-reported improvement, their motivation (i.e., the Ideal L2 Self, Dörnyei, 2009), and their communicative goals. Mixed-methods analyses showed that students' motivation increased from the first to second round of feedback no matter which type of feedback they received first (video or written). However, the majority of all students perceived that video feedback was most conducive to both improving their oral skills in Spanish and accomplishing their communicative goals. Implications for pedagogy suggest that FlipGrid is a means to providing an interpersonal, motivating method of targeted oral feedback in a language classroom.

Training intonation and word stress through Praat: Techniques and resources for pronunciation practice
Poster Session #28
Kevin Hirschi, Northern Arizona University

Prosodic features such as intonation and word stress have been known to contribute greatly to the comprehensibility of an utterance (Derwing & Rossiter, 2003; Zielinski, 2008). One way for L2 learners to practice target language intonation and word stress is through computer software such as Praat (Boersma & Weenink, 2001). While Praat is typically used as a speech analysis tool by researchers, several teachers have implemented its use with learners engaging directly with the software to visually inspect their speech (Gorjian, Hayati, & Pourkhoni, 2013; Le & Brook, 2011; Wilson, 2008). This poster presentation surveys the literature for techniques in teaching two suprasegmental features, intonation and word stress, using Praat in combination with other materials. It also reports on the author's use of two textbooks (Hancock, 2003; Lane, 2005) and two digital resources (Pronuncian.com and YouGlish.com) to provide stimulus for pronunciation practice and training with six EFL learners, outlining the development of the materials to use Praat in combination with controlled, semi-controlled, and free practice activities. Teachers and researchers may gain insight into the applications of Praat with L2 learners that elicit target phonological features for pedagogical or scientific purposes.

Can successful L2 pronunciation facilitate listening comprehension? The role of speech rate and pitch range

Poster Session #29
Roman Lesnov, Oakwood University
Sofia Wolhein Nava, Northern Arizona University
Valeriia Bogorevich, Northern Arizona University

The relationship between speech perception and production has been the topic of a continuous debate and investigation in second language (L2) contexts, with no conclusive outcome. Some studies found that perception precedes production (e.g., Flege, 1995), others showed that the opposite is possible (e.g., Trofimovich & Baker, 2006). Considering that perception is a fundamental part of listening comprehension, the question emerges: Can production of certain pronunciation features predict L2 learners' listening comprehension? Comparatively few studies (e.g., Romanini, 2008) investigated whether the production of suprasegmental features by English-as-a-second-language (ESL) learners affected their listening comprehension. Also, it is not yet clear if this relationship depends on students' speaking proficiency. This study sought to reduce this scarcity. It acoustically analyzed speech samples from 43 ESL students at three speaking proficiency levels (lower, mid, and higher) to see whether and to what extent the production of the four suprasegmental features– speech rate, pauses, sentence stress, and pitch range – correlated with the learners' listening comprehension scores. It was found that speech rate and pitch range were significant predictors of listening comprehension, the former having much more predictive power and the latter being especially prominent at the lower speaking proficiency. The findings suggest that ESL learners' success in listening may be associated with their speech rate and pitch production patterns. Therefore, the study advocates a teaching focus on L2 students' speech rate and intonation patterns as a way to develop both their speaking and listening abilities. The study also suggests a range of potential teaching activities targeting speaking fluency and intonation, such as a modification of Paul Nation's 4-3-2 activity (Brown & Nation, 1997). Finally, the study recommends that L2 learners be informed about the potential benefit faster speech rate and more accurate pitch production can have for their progress in listening.

Are teacher-training materials catching up to the World Englishes movement?
Poster Session #30
Janay Crabtree, The University of Virginia

Braj Kachru (1985) explored models of inner, outer, and expanding circles of countries that use English in the world over thirty years ago. In The Other Tongue Kachru (1992) proposed models for World Englishes (WE) and what he termed "communication domains or contexts and their formal manifestations" (p. 63) including an outline of phonetics and phonology and ending with a discussion of teaching WE. Now, thirty years after Kachru's exploration of WE, have teaching materials and thus teachers kept pace with these expanding trends?

This research reviews the last ten years of general teacher-training materials that cover oral skills, particularly pronunciation, to answer the question of whether these materials are now considering the complexity of World Englishes.

While there are WE-specific and English as an international language/lingua franca texts (Rose and Galloway 2019; Jenkins, 2000 & 2002; Walker 2010), these texts usually are specifically geared for a niche audience, not situated within a general TESOL or ESL teacher-training text. Secondly, while scholars debate whether a WE model or English as a lingua franca model can be agreed upon and that the field is still in its early stages (Pickering, 2006), WE is clearly affecting scholars who delve into the questions of diversity affecting language learning.

However, an examination of some of the last decade's most popular general texts used in training teachers to work with English-language learners reveals that while most resources now strive to use a comprehensibility-based model, many general texts have not provided sufficient discussion of what the various WE models for learners might consist of. In fact, many of the general texts with very few exceptions continue to treat English as monolithic, not as complex systems with varying audiences and needs, particularly where pronunciation is concerned.

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Descriptive analysis of prosodic properties of pragmatically marked prosody: A case of perception by native Japanese speakers of English

Poster Session #32
Shigehito Menjo, University of California, Los Angeles

Recent research in second language speech has suggested that comprehensibility and accentedness are separate entities (Munro, 20008) and pronunciation including both segmentals and suprasegmentals par-tially accounted for comprehensibility (Saito, Trofimovich, & Issacs, 2016). In addition to those findings, we still need the descriptive analysis of prosodic properties to better understand the relationship between prosody and comprehensibility and intelligibility as Trofimovich and Baker (2007) indicates.

This paper is a follow-up descriptive analysis to Menjo (2018) and reports measurements of the percep-tions of L2 learners of intonationally marked. Menjo (2018) investigated the prosodic perception of three groups of native Japanese speakers of English (JPs) of 32 English phrases spoken by native speakers of Eng-lish (NSs). A statistical analysis of the results concurs with an argument that the acquisition of pragmatical-ly marked prosodic cues are challenging for non-native speakers (Pickering, 2018). In this follow-up study, prosodic properties such as pitch, duration, and intensity, of those 32 words were descriptively analyzed. The preliminary result of the analysis suggests that duration and pitch may account for the incorrect per-ception of prosody by the JPs, depending on the number of syllables in a phrase: when the tonic syllable elongation accounts for about 60% of the entire duration of one-syllable words, for example. The paper introduces descriptive statistics of prosodic properties and discusses the importance of raising awareness of the role of particularly pragmatically marked patterns to intelligibility and comprehensibility.

Improving Thai College Students' English Final /-s/ Through Storytelling
Poster Session #33
Pimrawee Ruengwatthakee, Sam Houston State University

English as a Foreign Language (EFL) teachers and learners encounter many challenges with pronunciation, because it is one of the most difficult areas in English competence. (Gilakjani & Sabouri, 2016). The objective of this study is to improve the final consonant /-s/ pronunciation within EFL college students in Thailand using storytelling. One of the most important morphemes in English is "s" and is often mispronounced and omitted by Thai students (Kitikanan, 2016). The data were collected from 25 senior students majoring in English Practical Phonetics (EPP) course at the university in Thailand. This research employed one-group pretest-posttest design. The participants had a chance to freely choose a short Asian folktale from any country in Southeast Asia. The pre-test was implemented by a voice recording via the Line application. The frequency of /-s/ along with the variants of /-s/ were recorded and analyzed. Participants recorded their stories twice prior to the post-test. The results showed that the two variants of /-s/ used were [d] and [∅]. For instance, "his" /his/ pronounced as [hid], "price" /prais/ pronounced as /praid/ and "cats" /cats/ pronounced as [kat]. A comparison of the pre and post-test results indicated an improvement of the students' phonological awareness ($p < 0.001$). Additionally, these results suggested that using Line application can improve EFL students' English pronunciation and reduce their anxiety.

Developing a pronunciation course for graduate students in an EAP program - Challenges and strategies
Poster Session #34
Anna Moldawa-Shetty, Yale University

International graduate students face a range of challenging communicative contexts: they need to produce high-level academic work, actively partake in advanced academic conversations (e.g., colloquia, symposia, and workshops), and are expected to share their expertise with others in recitations, lab sessions, and conferences. To be able to participate fully in these interactions, they need to develop a high level of oral communication skills - speaking, listening, and pronunciation.

Despite having completed many years of English instruction, certain language challenges continue to persist and frustrate many of these advanced learners - pronunciation being a common and salient feature. While some of the pronunciation goals and needs of this population overlap (e.g., the elusive suprasegmentals), their distinct language histories and L1 backgrounds can manifest themselves in a large variability of individual goals and needs. Consequently, the task of developing courses that meet the needs of these learners can present significant challenges.

This poster presentation highlights instructional strategies and classroom activities from a pronunciation course developed for graduate students at a large research university. The course is oriented towards the intelligibility principle (Levis, 2005) and offers training in segmental as well as prosodic features of American English across a range of spoken genres and speech events of academic communication: formal and informal presentations, article summaries, classroom discussions, and group meetings. A significant portion of the course is devoted to helping students develop academic vocabulary and idiomatic competence. The role of computer-assisted pronunciation training in extending practice outside the classroom is also discussed.

Real-time formant visualization for vowel production training: Expert feedback
Poster Session #35
Ivana Lucic Rehman, Iowa State University

The benefits of computer-assisted pronunciation training (CAPT) have been well established in previous research: CAPT has been praised for being consistent and tireless; it allows for training to be individualized and maximized; it provides a stress-free environment with unlimited input, and learners can use it as long as they want in their own pace; it helps to keep track of learners' improvement; and the feedback can be individualized, instantaneous, and in real time. Additionally, visual feedback has become a recurrent topic in research on L2 pronunciation learning and teaching, and it has been increasingly used in CAPT. This type of feedback has been recognized as successful, especially when it comes to learning of segmental features.

This study introduces a novel CAPT tool for vowel production training called Vowel Viewer. Vowel Viewer uses automatic formant extraction for real-time vowel plotting. As a part of a larger study, a user study was conducted, in which language experts (n = 10) were exposed to vowel production training with Vowel Viewer during a 30-minute session. Then, they were interviewed on the usefulness and functionality of Vowel Viewer, and these interviews were qualitatively coded and analyzed. The findings revealed that the experts found Vowel Viewer to be useful for awareness raising of learners' vowel mispronunciations. Experts stated that Vowel Viewer provides valuable information about one's vowel production which sets a basis for successful pronunciation training. The main purpose of this study was to obtain initial results on the perceived effectiveness of Vowel Viewer to inform its further development in preparation for a vowel production training study with English language learners. Ultimately, the goal is to develop an effective and research-based CAPT tool, and this study is one of the steps in that process.

Comprehensibility of accented speech and listeners' language learning backgrounds
Poster Session #36
Takayuki Nagamine, Nagoya University of Foreign Studies

Unfamiliar accents often cause difficulties for listeners in understanding the speech content. Comprehension of unfamiliar accented speech is also affected by listeners' individual differences, such as listeners' familiarity with nonnative speech (e.g., Gass and Varonis, 1984) and the listeners' perceived competence (e.g., Matsuura, 2007). Previous studies have shown that the listeners' perceived comprehensibility and their actual level of understanding do not always correlate (e.g., Matsuura, 2007). However, to what extent this mismatch holds to listeners with different background of language learning remains relatively unclear.

The current study investigated how the language learning backgrounds of native Japanese learners of English affected their perceived comprehensibility and their actual comprehensibility of foreign-accented English. 42 native Japanese listeners with different degrees of overseas experience gave ratings on the perceived comprehensibility (i.e., how confident the listeners were in understanding speech) to seven English monologues read by four native speakers of English (American, British, Canadian, and Australian English) and three nonnative speakers of English from Germany, Taiwan and Japan. The listeners also answered multiple-choice questions for the actual comprehensibility (i.e., their actual level of understanding) and a questionnaire to express their sense of ownership of English.

The results suggested that the mismatch between the perceived and the actual comprehensibility of foreign-accented speech was observed only for the listeners without an extended overseas experience. The duration of overseas study seemed to play a primary role in the perceived comprehensibility judgments, but not significantly on the actual comprehensibility where familiarity with accents was thought to be a primary effect. Also, the higher degree of ownership of English was seen for the listeners with the longest experience of overseas study. This study will provide new evidence to understand the complex relationships between comprehension of accented speech and listeners' individual differences.

Pronunciation in EFL classrooms: A study of the Macedonian teachers' training, attitudes and practices
Poster Session #37
Aleksandra Lazoroska, University of Arizona
Agata Guskaroska, Iowa State University

This study examines the Macedonian EFL teachers' training, attitudes and practices related to pronunciation in classrooms across the Macedonian educational system, starting from primary schools, secondary schools, and university level. The purpose of this study is to investigate the extent to which pronunciation is taught throughout these levels of education and to examine the teachers' attitudes and practices. While the importance of pronunciation is immense, it constantly remains a neglected area. Therefore, it becomes necessary to explore its place across different EFL contexts.

The participants were 25 teachers and university professors. Data was collected through anonymous Qualtrics survey whose first part included questions on teachers' educational background. The second part included 15 questions regarding teachers' approaches towards pronunciation as well as questions related to teachers' pronunciation training, the place of pronunciation in their classrooms, whether they focus on segmentals/suprasegmentals, etc. Other questions addressed the use of materials and resources in EFL classroom (books, computer-assisted pronunciation training - CAPT, etc). Finally, the last set of questions touched upon the teachers' personal perspectives on accentedness, intelligibility, and identity issues.

Results showed that pronunciation is severely neglected in the Macedonian educational system. The EFL teachers reported lack of training, but also willingness for online or face-to-face additional training. In general, their attitude towards teaching pronunciation was positive and most of them believed pronunciation is strongly related to other language skills. Results also showed that teachers focus on intelligibility, but on the contrary, they believe accented speech is important for being perceived as a good professional. Finally, their practices show use of repetition, drills, minimal pairs, mostly by providing native speakers' speech.
The pedagogical implications arising from this study point out that there is a need for reconsidering the place of pronunciation in English classes and the ways whereby the teachers could teach pronunciation.

Spoken English: Improving pronunciation through an applied drama project
Poster Session #38
Samuel Nfor, Rikkyo University, Tokyo Japan

Jenkins (2010:105) argues that "the goal of pronunciation teaching should be the sufficiently close approximation of an NS accent such that it can be understood by NSs of that language." This project investigated whether Japanese students who participated in an applied drama project emerged with improved pronunciation, which could help them attain international intelligibility. Students' sketches were recorded and transcribed to identify pronunciation difficulties so as to make informed interventions in a series of lessons. Following this series of interventions, students were again recorded and transcribed to assess progress made. Segmental and suprasegmental features of phonology were used to address pronunciation deviations and the IPA phonemic transcription to represent pronunciation accurately. Some pronunciation areas that were identified and practiced were the labiodental fricative /v/, which was often substituted with the voiced bilabial stop /b/, and the challenge to discriminate and produce /l/ and /r/. For 10 weeks, class time was divided into two forty-five-minute blocks: one to read through sketches and the other to work on the course textbook. As students read through their lines, they were stopped at places where words were mispronounced. Sounds that created deviations from target-like pronunciations were distinguished, isolated and students were instructed to circle them in their sketches. The proper lip, tongue, and jaw placement for the sounds were demonstrated and students practiced until they could reproduce the sounds correctly. Carkin (2003:20) affirmed the effectiveness of applied drama in minimizing pronunciation challenges and stated that "students will have scripts written with pronunciation reminders, stress and emphasis marks and they will have a 'score' and learn to 'sing' the English as they act." Questionnaires and interviews at the start and end of the project gauged students' enthusiasm and analyzed their self-assessment. The study concluded that language taught through applied drama supplied motivation for positive change in the students' pronunciation of English.

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Second-language pronunciation learning post-fossilization: A case study in reading aloud with native-speaker recasts
Poster Session #39
John Nielsen, Purdue University

Second-language (L2) pronunciation learning and research, guided by language teaching's communicative bent, has oriented attainment goals towards intelligibility and comprehensibility (Derwing & Munro, 1997). Contrary to previous assumptions, it has been found that pronunciation teaching shows promising results even after the first year in a naturalistic language context (Couper, 2003). The question, then, is which instruction methods and pronunciation areas are most effective in helping students attain these goals. To contribute to this question, I undertook the study described below.

I met with a proficient L2 English speaker (native language Japanese)2.5hours a week for three months (35 hours total). The subject read aloud from an English young adult novel while I recast anything I subjectively perceived as non-native pronunciation. Each month we focused on a different area of pronunciation: the first month, individual words (segments and word stress); second, connected speech and reduction of grammar words; third, phrase and sentence intonation. While subsequent months had new focuses, I continued to occasionally correct errors that belonged to previous months.

Before, after (including a two-week delayed post-test), and once every two weeks during the treatment phase, I administered unique tests in which the subject was recorded reading three sentences and two paragraphs, and speaking spontaneously about three prompts.

Using clips from the recordings of the tests described above, I created a survey and administered it to five monolingual English speakers. The survey asked the native-speaker respondents to objectively (intelligibility transcriptions) and subjectively (comprehensibility and accentedness ratings) rate the speech of the subject. As this is an exploratory study, it is expected that the analysis of the results of the survey will answer questions about overall effectiveness of the reading aloud treatment and about relative effectiveness of the three different focuses of the treatment. I'll present these results, as well as the limitations of the study and how this research will move forward.

Attitudes towards L2 pronunciation instruction: A comparative analysis
Poster Session #40
Heather Offerman, Purdue University

Research suggests that pronunciation instruction should be developed and taught in the second language classroom (Derwing & Munro, 2005; Elliott, 1997; Simões, 1996) in order to facilitate intelligible and comprehensible utterances in the L2 (Derwing & Munro, 1997), along with supplementing second language (L2) learners with concrete pronunciation instruction that they desire (Levis & Grant, 2003). A large-scale current study proposes the use of 3 types of pronunciation instruction for a basis of comparison (Derwing & Munro, 2015): explicit instruction (EI) (Miller, 2012), visual feedback (VF) (Offerman & Olson, 2016), as well as a combined instructional treatment that incorporates both EI and VF (Kartushina et al., 2015) (CI). Each of these treatments serves as a means of pronunciation instruction to aid native speakers (NSs) of American English in producing more target-like realizations of the voiceless plosives /p/ /t/ /k/ in Spanish (Offerman & Olson, 2016), as the differences in aspiration values of the voiceless plosives in the onset position are distinctive markers of accent among NSs of both languages (Lord, 2005). As the results of this portion of the study are still in the analysis stage, another portion of current study focuses on the responses to an attitudes survey distributed to participants after each of the 3 treatments were completed. Participants rated 20 statements and questions in the form of a Likert-scale evaluation (Elliott, 1995) concerning the importance of their Spanish pronunciation, the usefulness of the treatment they received (EI, VF, CI), as well as their preferred method of pronunciation instruction (Lord, 2008). Results will indicate as to whether or not participants regard their pronunciation as important to their L2 development, believe that the particular treatment they received aided in their pronunciation improvement, and whether they had a positive experience in regards to their respective treatment.

From prosodic to syntactic strategies: The role of social variables in L2 pronunciation teaching
Poster Session #41

Juan Berrios, University of Pittsburgh
Marta Ortega-Llebaria, University of Pittsburgh

To date, teaching pronunciation in a second language (L2) is overlooked and often limited to segments. Consequently, systematic research informing pedagogical treatments on prosody remains insufficient [1]. Moreover, the dual route model has shown that sound patterns are mapped to social and linguistic representations simultaneously [2, 3], which enhances speech encoding by recruiting multiple cognitive resources. In this study we examine how dual encoding can guide learners in switching strategies to express contrastive focus. As seen in Table 1 below, in English, nuclear accents can be placed in nonfinal words to highlight a constituent. In Spanish; however, this is an infrequent variant. Instead, speakers adjust the syntax of the phrase, placing the constituent at the end [4, 5].

The research question is as follows: does instruction through dual encoding help teaching a distinction that is difficult to learn? The purpose is to determine whether learners can be taught to switch strategies and learning is enhanced by associating one strategy with one face. We employ a pretest-posttest design. Participants in the experimental group complete a training session where sentences from the same strategy are always presented with the same face, while the control group is presented with random associations between faces and strategies. In a pre-posttest, participants listen to sentences only and indicate whether the sentence is native or nonnative Spanish. Accuracy and reaction times will be measured, and results will be submitted to mixed-effects regressions. Both groups are expected to improve after training, with the experimental group displaying better encoding of different strategies as shown by lower response times and higher accuracy rates. This study can hence inform our understanding of how linguistic and social variables interact when encoding speech in an L2, which has implications for teaching pronunciation practices, focusing on the phonology-syntax interface to move beyond word-level analysis.

Pronunciation issues: The case of high proficiency university students
Poster Session #42

Alan Sánchez-Vázquez, Universidad Nacional Autónoma de México, UNAM
Escuela Nacional de Estudios Superiores, Unidad León. ENES León

Pronunciation problems in low proficiency students can be found in many different aspects of the spectrum, from fricatives to plosives to intonational aspects (Graham, 2018). Distance from native language and target language, along with a lack of focus on teaching pronunciation issues are amongst the reasons. Therefore, when students achieve a high level of language proficiency (B2, C1) are thought to have surpassed a great deal of pronunciation difficulties considering their different learning environments and experiences.

This study aims to provide an insight on the kind of pronunciation problems that still endure high language proficiency students and the relationship of these problems to the amount of exposure to the target language. 28 university students with a TOEFL ITP minimum score of 550 participated in semistructured interviews to obtain data on their backgrounds as students of English as FL. Posteriorly, analysis was carried out of commonly mispronounced sounds in English for Spanish native speakers and intonational fetaures such as pitch and stress. Findings reveal that high language proficiency students who produced mistakes of commonly mispronounced sounds had less hours of language instruction. Mistakes in the production of intonative contours were less common in most students, which can provide an insight on the process of acquisition of intonative patterns. Our data also shows an interesting correlation between having a positive attitude towards the target culture and producing a native-like accent. The overall results of the study provide a better understanding of what is missing in terms of pronunciation teaching in advanced levels of the language.

More, better, and earlier: Developing targeted linguistic strategies to improve speech comprehensibility for English-speaking students of Spanish
Poster Session #43

Jordan Sandoval, Western Washington University
Kirsten Drickey, Western Washington University

We have developed and implemented a series of online modules to complement existing intermediate course materials. Our cross-disciplinary faculty team takes advantage of our respective areas of expertise--cross-linguistic phonological transfer and Spanish-language pedagogy--and involves upper-division Spanish and linguistics majors in the development of pedagogical materials. We have piloted these modules in intermediate Spanish classes at Western Washington University.

Examples of modules include training students to recognize and produce differences between Spanish and English sound inventories, as well as sound patterns within those languages. Throughout the term students complete activities that compare differences between the phonologies of the two languages. The activities include discrete, isolated perception and production tasks that allow students to practice specific segments and structures; eventually, students gain experience with suprasegmental components such as stress. After intentional focus on these phonological components, students are given the opportunity to analyze and describe their performance using newly acquired tools. This scaffolded process incorporates continued self-analysis and feedback. We report remarkable improvements in students' productions, confidence, and ability to apply these concepts to future language study.

Effects of native language and accent type on L2 production, perception and monitoring of Japanese lexical accent
Poster Session #44

Eriko Takahashi, Mejiro University
Kazumi Hatasa, Purdue University
Yukiko Hatasa, Hiroshima University

Good pronunciation is a necessary skill for second language learners to have successful communication. Poor pronunciation raises processing demands on the listener, and native speakers experience comprehension difficulty, misunderstand the speaker's intention, or consider him/her incompetent (Hinofits & Bailey, 1980; Toki, 1994). Previous research has found (1) that Japanese native speakers rely on suprasegmental features such as intonation and accent rather than segmental features when they evaluate non-native speakers' pronunciation (Sato, 1995), (2) that the ability to perceive accent and the ability to evaluate and monitor one's own production is associated with production accuracy, and (3) accent types affects the accuracy of perception and production (Ayusawa, 2003; Matsuzaki, 2008; Ogawara, 1997,1998). Hatasa et al. (2017) found that. perception and production were related for Chinese-speaking leaners, but not English-speaking leaners. However, it is ot clear whether accent types affect the accuracy of perception and production differently depending on learners' native languages (L1).

Therefore, the present study attempts to fill this gap by examining the effect of accent type on production, monitoring and perception by two different L1 groups. Two hundred learners of Japanese took a series of online tests involving perception, knowledge, monitoring, and production of Japanese lexical accent. A half of them were native speakers of English (EJS) and the other half were Chinese (CS). For all the tests, target items consisted of words with one of the three accent types (HLL, LHL, LHH), which were based on the location of pitch fall in a word. The results indicated that (1) on the production and monitoring tests, LHL and LHH were the easier than HLL for CJS but LHL was easier than the others for EJS, (2) on the perception test, LHH was the easiest for both groups, and (3) CJS outperformed EJS on all tasks.

The use of intonation for positive feedback in L2 classroom
Poster Session #45

Daniela Torres Cirina, University of Arizona

The aim of this project is to explore the pragmatic role of prosody in the feedback given in a Spanish Conversation class. The analyzed feedback were taken from activities created with the objective of teaching Conceptual Metaphors in a mid-intermediate level Spanish class (according to ACTFL). The prosodic framework of Brazil (1997) was implemented, considering the prosodic features that help to express pragmatic meaning during teacher-student interactions. This study focuses on the analysis of a common sequence in classroom discourse, the IRF sequence (Initiation-Response-Feedback) proposed by Sinclair & Coulthard (1975). Only RF contexts were analyzed, based on Hellermann (2013) study, in order to clarify if (a) positive feedback follows a systematic intonational pattern, (b) the pitch range from student and teacher shows significant variation, and (c) positive feedback is perceptually unambiguous just by the intonational pattern. Acoustic analysis was done using PRAAT, and perceptual questionnaires were implemented. The analysis suggested that the prosodic pattern of the feedback is highly ritualistic, that the teacher's pitch range is wider than the student's, and that positive feedback intonation by itself is perceptually ambiguous.

Technology-enhanced teaching of Spanish vowels in introductory Spanish courses
Poster Session #46
John Trimble, Weber State University

To supplement research that compares different types of instruction and makes use of new technologies in L2 Spanish pronunciation, this study sets out to investigate the impact of technology-enhanced virtual Spanish lessons in a hybrid Spanish course. Participants came from two groups of students, both enrolled in a 3-credit-hour first semester Spanish course. The test group was enrolled in a hybrid section, which meet in person two days a week for 50 minutes each and once a week completed an online 'virtual' day. As one component of the virtual days, this group completed a series of technology-enhanced pronunciation lessons that were designed following a guided-inductive framework (c.f., Olsen, 2014). The control group met in class three days a week and received more traditional pronunciation training. All participants completed a production task at the beginning and end of a 15-week semester. Results indicated that, while both the control and test groups showed improvement in vowel pronunciation over time, the test group showed greater improvement in that they showed greater reduction in vowel centralization.

Factors affecting listeners' accent ratings of non-native English speech
Poster Session #47
Charlotte Vaughn, University of Oregon
Melissa Baese-Berk, University of Oregon

The perceived accentedness of a language learner is a central measure in studies of second language learning. Although accent ratings are often presumed to be stable properties of speakers, factors like modality, the presence of orthography, and task order have been shown to influence accent ratings (Levi et al., 2007; Munro & Derwing, 1994; O'Brien, 2016; Yi et al., 2013). The present study seeks to better understand how accent ratings are affected by contextual factors, specifically the type of stimulus used, and the ordering of speakers within the rating task.

Stimuli came from the ALLSSTAR Corpus (Bradlow et al., 2010), and included read English productions of single sentences and short passages from six speakers, four native Mandarin and two native English speakers. One native Mandarin speaker was chosen at random to be the target speaker. In prior work, we conducted an experiment collecting accent ratings of only the read passages (AUTHOR INFORMATION REDACTED), and found a penalty in ratings for speakers heard first, and less consistency of target speaker ratings when presented last vs. first.

The current paper compares results from those prior findings with data from new listeners rating sentence stimuli. This experiment varied whether listeners were presented with sentences randomized or blocked by speaker, whether the sentences were the same or different for all speakers, and whether the target speaker was presented at the beginning or end of the experiment. Preliminary analyses of the sentence experiment replicate the passage experiment in finding a penalty for the speaker presented first, and also suggest that this effect is larger than the effect of blocking versus randomizing sentences, and the effect of using the same vs. different sentences by speaker. These results offer methodological insights, and also build toward a better understanding of how listeners judge the accentedness of a talker.

What EFL teachers believe learners need for intelligible pronunciation: Decisions based on Japanese learners' interlanguage pronunciation
Poster Session #48

Katsuya Yokomoto, Sophia University, Bristol University

Some researchers have found the influence of specific pronunciation features on intelligibility, but how teachers prioritize pronunciation features in the intelligibility-based approach is still underresearched (Levis, 2018). This study explored what English as a foreign language (EFL) teachers considered when they decided what pronunciation features to teach as they heard Japanese university students' pronunciation. Four groups of three EFL university teachers (5 Japanese, 4 British, 2 Australian, & 1 American) participated in this study. In the first session, the participants in each group listened to three sets of stimuli (reading-aloud and storytelling) recorded by three Japanese university students and individually decided what pronunciation features they would teach. In the second session, they discussed their rationale for their decisions in focus groups interviews. The focus group interview data were orthographically transcribed. The transcriptions were analyzed by means of eclectic coding (Saldaña, 2016), and the themes were identified through multiple cycles of coding. The data were triangulated with the participants' notes, the author's notes, and questionnaire results from a previous study in which the participants had participated. The results showed that teachers made different decisions as to what pronunciation features to teach ranging from consonants to intonation and that they believed the features they chose would lower the intelligibility. The participants also revealed that their continuous exposure to Japanese learners' pronunciation in the past years influenced what is intelligible pronunciation to them. They further discussed the importance of taking the communicative contexts the learners would encounter in the future into consideration when they set "intelligibility" as a goal of pronunciation teaching. The implication of this study is that, when determining whether the learners' pronunciation is intelligible or not, relying on teachers' subjective perception of the learners' intelligibility may not be sufficient and that more research-based, informed decisions would be ideal.

TEACHING TIPS

Concentrating on function words
Teaching Tips Session #1
Donna Brinton, UCLA

English is often characterized as a stress-timed language, with stressed elements occurring at relatively regular intervals in a phrase or tone unit. Although recent research (see for example Dickerson, 2015) calls this characterization into question, for pedagogical purposes it is useful to point out that stress in English typically falls on designated content words (e.g., nouns, verbs, adjectives, and adverbs) while all other elements of the phrase (e.g., articles, conjunctions, prepositions, particles) tend to be unstressed. These elements, known as function words, help to maintain the stressed/unstressed rhythmic pattern of English. While stressed elements are relatively easy for learners to hear, unstressed elements are much more difficult. Lack of knowledge about the stress-timed nature of English can lead to learner difficulties in comprehension; it also reinforces the tendency of learners from syllable-timed or mora-timed language backgrounds to place stress on the wrong elements of the phrase when speaking.

This teaching tip involves several game-like activities designed to heighten learner awareness of the unstressed nature of function words. Two interactive options are presented--Function Word Concentration and Swat the Function Word. Handouts describing the rationale, the classroom procedures, and a printout of the materials necessary for conducting the activities will be provided.

Chopsticks are not only for eating
Teaching Tips Session #2
Marsha Chan, Sunburst Media

Many native speakers of Japanese, Korean and Chinese languages have difficulty distinguishing /l/ and /r/ when pronouncing English. Speakers of Chinese may confound /n/ and /l/ in English. Speakers of Vietnamese may mix up /r/, /ʒ/, and /z/. Speakers of Spanish and many other languages trill or tap the /r/ whereas /r/ is rhotacized in American English. Tongue control is key: where to place which parts of the tongue, whether to let the tongue touch the gum ridge or not, the degree of pressure to apply—or not! After a brief review of the place and maner of articulation, this teaching tip aims to increase proprioceptive sensibility of the typically unviewed fleshy muscular organ in relation to the hard parts of the oral cavity to create recognizable phonemic representations of /n/, /l/, and /r/ using a chopstick or similar device as a guide.

The simplistic verbal descriptions—choptick above the tongue for la-la-la, chopstick below the tongue for na-na-na, chopstick before the tongue for ra-ra-ra—will be exemplified, enhanced, and embellished with face-to-face, eye-to-eye, tongue-to-stick physical interaction. You may bring your own chopstick (or pencil, straw, or finger) or use one provided in the session.

As a bonus to the teaching tip—and because the time period is quite short, resources to articles and video clips for lesson preparation, presentation, and follow-up will be provided. These will include thinking-about-sounds discussion questions, physical warm-up exercises (such as tongue waggles), use of other simple gadgets (such as straw, sock, glove, mirror), discrimination exercises, detailed characteristics of the target phonemes, and contextualization of the phonemes in scaffolded practice types (words, phrases, sentences, and longer utterances).

Anglo-Saxon songs to teach English pronunciation for Brazilian students
Teaching Tips Session #3
Maria Delfino, PUC-SP

Popular music has been used as a tool in the teaching of foreign language for a long time (Bertóli-Dutra, 2014) and it can be the central element in language teaching; indeed, in our proposal, all language teaching activities were based on popular music and on texts that draw on topics related to popular music. Our goal was not to teach "pop song" English but to students to current spoken English. To meet this goal, an analysis of the song lyrics was used as a starting point for the development of the teaching materials. The corpus used in the project was a pop song lyrics corpus (CoEL), composed of about 150,000 words from 585 British and American lyrics from pop songs performed by the following artists: Beatles, Bon Jovi, Maroon 5 and Bruno Mars. With the lyrics from these artists, exercises were made and applied to Brazilian students learning English as a second language, focusing, among other aspects of the English language, on the pronunciation of words, drawing the students' attention to linking words (e.g., when one word finishes with a letter and the following word starts with the same letter, link the words), and the nonpronunciation of the 't' at the end of negative words, such as can't, don't, didn't, since Brazilian students tend to pronounce all the letters. Lyrics have proved to be a very fun and effective way to help students in their pronunciation, since they could listen to how the words are pronounced and then repeat them. The classes usually ended with a karaoke, where students could have fun practicing what they learned. In this presentation, we will show how activities were designed, types of exercises used, and how they were applied at a higher education classroom setting.

Practice with excitement intonation contours, using product descriptions
Teaching Tips Session #4
Barry D. Griner, University of Southern California

Once students have developed reasonable comprehensibility, many want to develop fluency. Rhythm, prominence, intonation, and adjustments in connected speech all play a part in sounding fluent. When practicing intonation, students are often advised to mimic or shadow native speakers. But how is a student supposed to know an acceptable, natural intonation contour for an original speech or script for which there is no native speaker model?

In this 10-minute Teaching Tip, an activity used in a pronunciation class for university students will be demonstrated. The focus of the activity is the excitement or enthusiasm intonation contour, in which there is a jump from a low tone on the stressed syllable of the preprominent word to a high tone on the stressed syllable of the prominent word (Celce-Murcia, et.al, 2010). To illustrate this contour, short product descriptions from a Trader Joe's "Fearless Flyer" are marked for prominence and intonation. Participants will then be given a chance to mark up a sentence from a product description and then read it aloud.
Participants will be given quick step-by-step guidance as they do their own mark-ups {e.g., 1) Divide each sentence into smaller intonation units (consider pace, syntax, emphasis, contrast); 2) Decide which content words are most prominent; 3) Put a dot above the stressed syllable of the prominent word, and put a dot below the stressed syllable of the pre-prominent word, 4) Etc.}. Some variation in participants' decisions is expected.

At the end of the session, an example of a more detailed handout that I use for this classroom activity will be provided to the participants.

A useful schematic for teaching pronunciation with meaning in academic settings
Teaching Tips Session #5
Ellen Lange, University of California Davis

Dickerson (2015) suggests pronunciation practitioners teach L2 learners to stress more content words than necessary in a speech stream or thought group, a practice which can limit listeners' understanding. Instead, he emphasizes focusing on "contrasting peaks and valleys," stressing two content words in thought groups, the anchor peak and the primary peak (Dickerson, 2017). Additionally, researchers and practitioners (Levis, 2018; Pickering, 2018) encourage focus on prosody as a best pragmatic to help L2 students speak with meaning. Finding a "quick and dirty" method to teach this type of pronunciation to International Teaching Assistants, graduate students, and researchers who deal with the complexities of academic English's more formal structure and vocabulary (Hill and Miller, 2013) and who must impart meaning in lectures, lead discussion groups, and/or present their research presented a challenge. Implementing a visual and auditory approach (Mori, 2014) emphasizing the music of English as it applies to all syllables in thought groups was deemed appropriate. This schematic of colors for the three basic pitches (Kaiser, 2014) and its system of lines and dots for the three rhythms, used successfully for Asian speakers in IEP public presentation skills classes and in ITA training, will be demonstrated as a useful pronunciation teaching tip for academic situations.

Using paired pronunciation activities to reinforce idiomatic expressions and phrasal verbs
Teaching Tips Session #6
Crystal Louden, College of the Desert, Palm Desert, CA

My proposal for a teaching tip is a pronunciation pair practice that I have found effective with my adult ESL students regarding the reinforcement of idioms and phrasal verbs. It is a great way to combine and recycle content with a focus on pronunciation. The more times that a student is actively involved in oral practice, the better chance they will have to assimilate it and use it in their daily communication. Also, Peregov and Boyle remind us that "ELLs acquire different amounts of vocabulary than native speakers. On the one hand, a recent study showed that the volume of vocabulary acquired by native English speakers is 1,000 words annually before college level, which then becomes 2,000 words per year." (2013) Therefore, it is essential that students include in that vocabulary necessary idioms and phrasal verbs to their repertoire to facilitate communication and comprehension.

Working in pairs using close reading and collaboration, students read sentences aloud to determine which idiom or phrasal verb is correct in the context. The activity is structured so that pronunciation is critical to the correct sentence being chosen by the two students. I also plan to collect email addresses and send participants editable copies of my activities so they can easily refer to them at a future date during their planning and customize them as needed.

Teaching contrastive stress for varied speaking levels
Teaching Tips Session #7
Greta Muller Levis, Iowa State University
Sinem Sonsaat, TED University
John Levis, Iowa State University

Contrastive stress, in which words or syllables are emphasized to show their relationship to other words or syllables (e.g., It's not unknown, it's well-known), calls attention to how spoken lexical information is highlighted to express explicit and implicit comparisons/contrasts. That is, it evokes a set of possible referents and then uses pitch and length to select one referent from the group (Cowles et al., 2007). Although contrastive stress is common in conversational and planned speech, L2 English learners at all proficiency levels struggle with signaling contrasts consistently, instead emphasizing repeated words (e.g., It's not unknown, it's well-known). But contrastive stress is highly teachable at all levels of instruction and promotes comprehensibility improvement with even modest levels of instruction (Benner, Muller Levis & Levis, 2014; Levis & Muller Levis, 2018; Muller Levis & Levis, 2012). This improvement is evident in both controlled, and more communicative activities, both critical elements of pronunciation improvement in the communicative framework of Celce-Murcia et al. (2010).

This teaching tip includes a variety of controlled and communicative activities to teach the production of contrastive stress, including strategies to identify contrasts in written texts, to produce contrasts in asking about and expressing preferences, to express contrasts using simple pictures, and in using contrasts to correct and disagree. Participants will take away a short lesson that can be used in any level of class with suggestions for how to follow up the activities in future classes.

Pronunciation resources for English as a second language teachers: 10-minute pronunciation lesson plans
Teaching Tips Session #8
Erica Roque

This project consists of a compilation of twenty-five 10-minute pronunciation lessons that involve different methods and teaching styles. Because of the reported lack of teacher time and training on teaching pronunciation, this website brings mini pronunciation lessons that teachers can incorporate in their lesson plans without having to do any extra work with modifying their original plans. The plans will be provided for download with all materials necessary to complete the lesson. Some of the important lessons offered on the website are the correct pronunciation of the regular simple past, r/l, p/f, s/z, i/ɪ, group thoughts, how pronunciation changes meaning, and word stress. Depending on the pronunciation focus of the lesson, different methods are used: explicit pronunciation, drama, haptic, and total body response, among others. Teaching pronunciation in unique ways to students will make it memorable and improve their pronunciation.

Teaching suprasegmentals in a digital age: Utilizing tutorial videos to improve perception and production of spoken English
Teaching Tips Session #9
Amir Rouhollahi, University of Memphis
Paula Schaefer, Allegheny College
Özge Yol, The State University of New York at Binghamton

Suprasegmental features of English are key factors of intelligibility for nonnative speakers, and targeting of these pronunciation features improves speech quality (Kang, 2010). Many scholars recommend explicit methods of instruction of suprasegmental features to nonnative speakers (Sicola & Darcy, 2015; Levis and Shilpachai, 2018) when it pertains to perception and production especially in an ESL context.

This teaching tip originates and is adapted from a series of studies that examined the perception and production of various suprasegmental features in a number of settings (ESL and EFL) and with learners of various proficiency levels. Six tutorial videos were designed to include two parts: a theoretical explanation of the feature and an opportunity for learners to practice producing the suprasegmentals. Pre- and post-tests were created via Qualtrics in order to measure the effects of the videos. The use of videos allows students to be autonomous and creates a more fun way to learn about pronunciation features. The inclusion of practice exercises in the videos gives students the chance to practice as many times as needed with no limitation on views. Qualtrics tests provide teachers with a quantifiable method of measuring student progress.

During this presentation, attendees will view clips of the video as well as sample tests created. This teaching tip will first include a shortened simulation of the study's procedure as well as recommendations for using similar CAPT activities in traditional and online environments. The video links will be shared with the audience as a way to promote open access to various classroom materials. By using these methods, students' perception and production are targeted. This teaching tip could also aid the development of pronunciation instruction materials for other international professionals (e.g. teaching assistants) to improve intelligibility both in perception and production which can be accomplished through similar but modified tutorial videos.

Using stereotypical accent to improve French accentuation
Teaching Tips Session #10
Viviane Ruellot, Western Michigan University

This presentation proposes tips and recommendations for the use of stereotypical accent to introduce adult American learners to French accentuation. Accentuation in English and French differs not only in the placement of stress but also in its strength, leading to a reduction of English unaccented vowels that does not occur in French (Tranel, 1987). Failure to assign equal weight to French syllables not only affects the degree of accent "foreignness" (Dansereau, 1995:645), but the accompanying vowel reduction may considerably impact comprehensibility. Imitation of a foreign language (L2) accent in the speaker's native language (L1) has proven efficient in improving L2 pronunciation (Everitt, 2015). Not only does it afford learners exclusive focus on that skill, but it also allows them to retrieve phonological and phonetic knowledge acquired through exposure to L2 accent, including stereotypical accent, and apply it to improve L2 pronunciation. As it has helped Spanish learners improve aspiration of L2 English /p/, /t/, and /k/ in Everitt, it may also help English learners with French stress placement and unaltered vowel quality. Proposed is a series of contextualized and communicative activities designed towards that goal.

What am I doing with my mouth, what does it look like, and how does it feel? The physicality of teaching pronunciation
Teaching Tips Session #11
Paula Runnals, University of California Berkeley

Pronunciation is a physical activity and needs to be taught as such. As Underhill (2013) reports, pronunciation is usually taught using non-physical methods, primarily cognitive description and discussion, and repetition. He suggests that learners need to develop 'proprioception', a conscious awareness of the movement and position of the body parts and muscles related to pronunciation, particularly the jaw, lips, tongue and voice. This is necessary in order to make the connection to pronunciation as a physical activity and to differentiate how it is learned when compared to other aspects of language learning. Proprioception can be developed through both analytic-linquistic and intuitive approaches to teaching pronunciation as described by Celce-Murcia et al. (2010).

This session will share teaching tips to raise student's awareness of the physical actions of the body parts (mouth, lips, jaw, teeth and tongue) and organs (vocal chords and lungs) involved in producing individual sounds. In teaching pronunciation I use three guiding questions with my students. "What am I doing with my mouth? What does it look like? and How does it feel?" In using this framework I explicitly explain the sound production process and demonstrate using a variety of physical and visual techniques to get them to see and feel body movement, voice and breath. The techniques include using props and physical contact between teacher and students and student-to-student contact for demonstration and perception activities. Physicality can also be used in teaching intonation, rhythm and stress, by using gestures, tapping and other body movements.

Teaching tips for Vietnamese pronunciation
Teaching Tips Session #12
Mark Sakach
An Nguyen

1. Full Body Phonemes
Illustrating tongue position with rich phonetic descriptions and bodily gestures can help students to develop awareness of non-native phonemes. The syllable final /n/, /ŋ/ and /ɲ/ sounds are often difficult obstacles for L2 learners of Vietnamese. We developed some gesture/description combinations for the instruction of syllable final nasals in Vietnamese. Both hands are used to illustrate the tongue position, and action verbs like 'throw' and 'gently tap' are used to guide the movement of their 'full body' tongue. Because the difference between the Vietnamese syllable final nasals is not purely consonantal and the vowel position is affected as well, students can also be taught in terms of vowel sounds to reach pronunciation goal. As always, awareness of what the individual student are able to grasp is key to giving appropriate pronunciation feedback.

2. Read Naturally - (Đọc cho trôi chảy)
It is observed that some students may sound intelligible in speaking and yet, they do not sound natural when reading a text. Adopting the approach of the Read Naturally program, we have been developing a Vietnamese reading program to enhance both pronunciation skills and reading comprehension for L2 Vietnamese students.

One lesson in this Reading kit is comprised of Vocabulary, Prediction, Story, Comprehension Questions, Drawing and Writing. The excerpt below is a story with only words that contain an initial consonant and a vowel. Since the Vietnamese script is phonetically based, students at elementary level can easily read this out loud.

Oral diagnostic assessment and accompanying lessons
Teaching Tips Session #13
Mari Sakai

Researchers in second language (L2) phonology recognize the individual nature of pronunciation development, especially for learners who do not share the same proficiency, motivation, or first language (e.g., Derwing & Munro, 2005; Nagle, 2017, 2018). No learner is exactly alike, yet language classrooms by definition bring together a group of students that will invariably differ in background and needs. With this obstacle in mind, how can L2 instructors offer research-based, individualized methods to address pronunciation issues while still maintaining a healthy workload?

This teaching tip will present an oral diagnostic assessment, three accompanying classroom lessons, and two at-home assignments that provide learners with individual and group experiences. As a whole, the assessment and activities prioritize intelligibility rather than native-likeness (Levis, 2005). The diagnostic itself was developed and refined over the course of three years, with use on approximately one hundred Master of Laws students, who speak English as a L2. For the oral diagnostic, students are paired with a peer shortly after matriculation, and they are asked to complete a 10-minute recorded conversation. The instructor reviews the recordings and notes places of difficulty regarding intelligibility, comprehensibility, and spoken grammar. A few weeks later, all students receive an individualized feedback report that outlines their specific pronunciation difficulties. Learners who show a patterned issue with a pair or trio of segments receive an assignment on englishaccentcoach.com. This free website hosts a perception game that utilizes the high variability phonetic training (HVPT) technique, which researchers know to be a highly effective method of perceptual category learning (Thompson, 2012). Focused training on the perception of difficult L2 phonemes will likely improve the pronunciation of those sounds as well (Sakai & Moorman, 2018). The diagnostic and additional activities offer students individualized, research-supported teaching techniques while preserving a reasonable workload for the instructor.

Children's stories for prosody practice
Teaching Tips Session #14
Catherine Showalter, Northeastern University

Prosody (intonation, stress, pitch, and rhythm) carries communicative value and pragmatic meaning for English speakers (Levis & Wichman, 2015; Reed & Michaud 2005; Wennerstrom, 2001); however, it is difficult for second language learners to acquire (Mennen, 2007; Wrembel, 2007).

Children's stories can aid first language suprasegmental acquisition (e.g., Breen, 2018), containing predictable sound patterns and written to exploit prosody. Singing/rapping, which also exploit prosody, have been found to aid second language prosody acquisition (e.g., Barrett, 2015; Mora, 2000; Shin, 2017). This teaching tip contains a set of prosody activities for non-native speakers of English. Dr. Seuss passages are the base materials (widely available in myriad forms); however, any children's stories or poetry could be substituted. To begin, explain that children's stories often rhyme, have specific rhythm, and are over-exaggerated.

Activity A) Learners read Dr. Seuss passages; for support, they can watch/listen to recordings. Learners should note punctuation marks and context for conveying emotions, thought groups, and intonation through prosody. Learners read the passages in small groups, with increasing speed (testing segmental production, similar to tongue twisters), or act out their passage for the class.

Activity B) Learners "read" the passage by humming each line. Dr. Seuss passages are written such that each line (often) carries a different prosodic pattern; learners must exaggerate prosodic elements in each line, while those listening guess which line is being hummed. Adding physical movement (see Chan's, 2018 review for its effectiveness), learners are encouraged to move their arms/bodies as they stress words, change pitch, etc. to show differences across lines.

While humming the passages, learners should take note of how much information is conveyed in the prosodic elements of each line and the importance of prosody for communication. Over-exaggerating prosody may allow learners to recognize, apply, and generalize this information to new contexts.

Back to the Future: Putting the "Zoom" back into the Zoom Principle
Teaching Tips Session #15
Mark Tanner, Brigham Young University

While pronunciation is a key component in helping ELLs achieve fluency and accuracy in the second language (Goodwin, 2014), ESL teachers often lack confidence and competence in knowing how best to teach pronunciation (Foote, et al. 2013; Gilbert, 2009, p. 1), which causes it to often be neglected in ESL classrooms (Derwing & Munro, 2014). This is unfortunate because research has shown that a focus on global pronunciation features can improve ELLs' intelligibility and comprehensibility (Derwing & Rossiter, 2003; Hahn, 2004; Zielinski, 2008).

The Zoom Principle was first written about over 25 years ago (Firth, 1992), but its influence has not been widely understood or utilized by teachers in today's methodology of communicative pronunciation teaching. While many textbooks emphasize the importance of rhythm, stress, and intonation (Gilbert, 2012; Grant, 2017; Miller, 2007) and provide helpful exercises to practice these prosodic features, assisting teachers who may lack confidence or knowledge of pedagogical application is critical in having pronunciation be consistently integrated into the speaking and listening classroom.

This teaching tip will take teachers on a ride back to the future of pronunciation teaching with tips on using the Zoom Principle to provide a pedagogical framework for diagnosing learner difficulties and then systematically addressing these issues in contextualized communicative practice that goes beyond the word and sentence level.

Raising awareness of dialectal differences in Spanish for L2 learners: Perception activities
Teaching Tips Session #16

Zoe Zawadzki, Ohio University
Sofia Fernandez, Ohio University

Some dialects are comprehended more easily than others and therefore are imperative in the listening comprehension of an L2 learner (Major et al., 2005; Schmidt, 2009). Considering that learners better understand the dialects that they are exposed to (Ockey & French, 2016; Schmidt, 2009; Tauroza & Luk, 1997), the more dialects that they encounter in the classroom, the more they will be able to understand different varieties of Spanish. Therefore, it would benefit students to be introduced to various dialects of the language that they are learning since it could affect their listening comprehension (Major et al., 2005). In this teaching tip, the presenters will introduce a set of activities created for the second language classroom to raise awareness about several dialects of Spanish. The main goal is to increase students' understanding of those dialects which are used around the world. First, the students are introduced to various Spanish varieties through YouTube videos about culture. Next, they are taught the most salient features, such as rehilamiento or vowel reduction, that distinguish the different dialects. Resources will be provided by the presenters explaining these different characteristics to the students and teachers. The goal is for students to understand when these linguistic qualities are being used, not to put an emphasis on knowing their origin or reproducing them. Then, the students complete a discrimination task where they identify whether the words they hear are the same or different in order to test their perception of dialectal differences. Finally, in a cloze exercise, students have to write the words they hear that incorporate these salient features. A handout will be provided with additional information on the lesson.

Say Yes: Improv for Improved Pronunciation
Teaching Tips Session #17
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Growing in popularity among millennials and at companies such as Google and Facebook because it promotes creativity and collaboration, improvisational acting is especially relevant to the ESL classroom. Playing around in English adds salience to language learning, and "simple drama techniques put language in context and make it easier for students to speak with natural intonation, pauses, and connected speech" (Yoshida, 2016). Moreover, according to Yoshida, drama exercises tend to lower the affective filter: "When students pretend to be someone else in role plays, skits, and puppet shows, it can be easier for them to forget their shyness and try to imitate new intonation patterns (2016). This presentation will describe an approach that prompts students to use key segmental and suprasegmental patterns in improv warm-ups while providing enough salience and repetition to raise student awareness of the patterns. Students enjoy the warmups and the individualized post-play feedback on their pronunciation. In addition, participating in improv challenges students to create meaning collaboratively while playing their roles: such tasks are thus interpersonal, interpretive, and presentational at once. Furthermore, it is precisely these fast-paced, unrehearsed utterances that allow students to practice pronunciation in a communicative way.

Participants in this presentation will learn about a number of improv warm-ups they can use to raise awareness of and elicit repetition of key pronunciation points. They will also evaluate a number of improv warm-ups and consider how to adapt them to different courses and levels of proficiency. Finally, the participants will be given time to ask questions to clarify their understanding of the improv games and the approach.

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