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# Teaching-oriented research

John M. Levis

*Iowa State University*, [jlevis@iastate.edu](mailto:jlevis@iastate.edu)

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## **Abstract**

This paper examines some of the factors that make for a good teaching-oriented paper, in which research and practice are most clearly connected. Such papers have clear research questions, explicit and systematic approaches to teaching and learning for experimental and control groups, improvement measured by pre and posttests, and well-developed teaching implications. Various papers from different journals are used to illustrate the characteristics of successful teaching-oriented papers.

## **Keywords**

pronunciation teaching and learning, research-teaching interface and teaching-oriented research

## **Disciplines**

English Language and Literature | Language Interpretation and Translation | Modern Languages | Technical and Professional Writing

## **Comments**

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# Teaching-oriented research

John M. Levis

Iowa State University

This paper examines some of the factors that make for a good teaching-oriented paper, in which research and practice are most clearly connected. Such papers have clear research questions, explicit and systematic approaches to teaching and learning for experimental and control groups, improvement measured by pre and posttests, and well-developed teaching implications. Various papers from different journals are used to illustrate the characteristics of successful teaching-oriented papers.

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## Teaching-oriented research: What is it?

Discussions among journal editors about journal submissions invariably include discussions of whether a submission is a good fit. Is a particular submission within the scope of what a journal publishes? Does the submission seem similar to other articles in the kinds of questions it asks, or does it break new ground that promises a new approach to core issues? Depending on the journal's scope, this can lead to a paper being rejected for no reason other than its lack of fit, costing time for authors and editors. If the lack of fit is not immediately noticed, it can cost reviewers time and energy as well.

Somewhat surprisingly, the most challenging JSLP papers in terms of fit are the teaching-oriented papers. We regularly receive papers that are teaching-oriented, but many simply do not fit the kind of paper we are able to publish. Such rejected papers may describe teaching ideas that are said to be successful but without independent evidence, or they may describe the ways that pronunciation can be approached in particular contexts without adequately connecting the description to larger issues in the field.

What is it that makes papers unsuitable? To answer this, it is helpful to examine our scope statement, with language that is generally or specifically teaching-oriented underlined.

*The Journal of Second Language Pronunciation* is a scholarly journal devoted to research into the acquisition, perception, production, teaching, assessment, and description of prosodic and segmental pronunciation of second languages in all contexts of learning. The journal encourages research that connects theory and practice, enhances our understanding of L2 phonological learning processes, and provides connections between L2 pronunciation and other areas of applied linguistics such as pragmatics, CALL, and speech perception.

*The Journal* publishes papers in four main areas: experimental, instructed, and naturalistic research about second language pronunciation; review articles that synthesize research perspectives of key pronunciation issues from different disciplines; teaching-oriented papers detailing successful practices and research-based instruction; and reviews of technology and books focused on second language pronunciation.

At a very basic level, teaching-oriented papers must have unbiased evidence that is collected in connection to a recognized theoretical purpose (Levis, 2017). In other words, such papers must be related to other research. If that related research is theoretical, the teaching-oriented paper should be pedagogically focused. If the related research was pedagogical, the study must break new ground either pedagogically or by tying the research to a general issue of interest to L2 pronunciation.

Some of the unsuitable papers we have received have been those that are based on experience or anecdotal evidence, those that describe practices without connection to key themes in the field or other areas of applied linguistics (that is, practice that is not based on larger issues in the field), descriptions of phonetically interesting topics but which are not related to practice, and descriptions of L2 learners that do not appear to have been carefully selected to match a research question.

The first of these, practices based on experience or on anecdotal evidence, may have great value and be highly relevant to practicing teachers. At the Pronunciation in Second Language Learning and Teaching conference ([www.pslit.org](http://www.pslit.org)), there are presentations on Teaching Tips. Sometimes these tips are based on theory or what we know about learning pronunciation, but often they are ideas that seem to work but have no explicit research supporting them. In and of themselves, they are not appropriate for a teaching-oriented paper in JSLP.

The second set of papers describe practices without connection to key themes in the field or other areas of applied linguistics. They also are often a poor fit as a teaching-oriented paper. These studies may look like research studies but often fail because they describe an inadequate or uninteresting gap in the research. For

example, saying that no one has ever looked at learners in Kyrgyzstan (a country which we have never received a paper about) is inadequate without saying why learners in such a context are interesting in relation to larger issues in the field.

The third type of inadequate teaching-oriented paper describes phonetically interesting topics which are unrelated or only peripherally related to practice. Adding pedagogical implications at the end of such a paper does not help. JSLP encourages such a connection of theory to practice, that is, teaching or learning. Papers without a compelling connection are likely to be a better fit for specialist journals such as the *Journal of Phonetics*.

Finally, the last general type of poorly fitting papers involve descriptions of L2 learners that have not been carefully selected to match a research question. For example, looking at a collection of learners who differ in L1, proficiency level, numbers of subjects per L1, or other key variables, is likely to lead to an inadequate teaching-oriented paper because it is so difficult to generalize from such a collection of subjects. In other words, teaching-oriented papers should be generalizable or clearly relevant to other contexts.

### What is included in a good teaching-oriented paper?

Successful teaching-oriented papers have certain characteristics. In the rest of this paper, we provide some characteristics of successful teaching-oriented papers from JSLP and other journals (Table 1). From an examination of these papers, we can say that teaching-oriented papers typically have **all or most** of the following. They

1. have clearly-stated research questions

This is a fundamental aspect of a successful teaching-oriented paper, and indeed of any empirical research.

2. have a systematic, planned teaching/learning component
3. report learning outcomes/improvement based on teaching practice
4. are based on empirical data (data before and after the training)
5. include a control group

#2–5 are connected, in that teaching-oriented papers should have a teaching or learning focus that includes a way to measure improvement, that the improvement be measured by well-designed pre and posttests (and if possible, delayed posttests). Increasingly, there is agreement that such improvement should also be according to the “gold standard or enhanced comprehensibility

and intelligibility (Thomson & Derwing, 2015, pp. 332–333) rather than the dominant approach that simply measures improvement of particular pronunciation features. It is also desirable to have a control group to be able to determine whether improvement in a teaching/learning intervention is due to the intervention or time.

## 6. have well-developed implications for other practitioners or researchers

#6 is an important part of a successful teaching-oriented paper, which should have clearly stated and justified (with previous research literature) implications regarding at least one part of the teaching and learning experience: teachers, learners, techniques, materials, time spent on task, etc. These implications should typically stay within the limits of the research questions.

**Table 1.** Examples of successful teaching-oriented papers

Authors	Title of article
Cerreta & Trofimovich (2018, JSLP)	A sensory-based approach to L2 pronunciation instruction for actors
Chun, Jiang, Meyr, & Yang (2015, JSLP)	Acquisition of L2 Mandarin Chinese tones with learner-created tone visualizations
Foote & McDonough (2017, JSLP)	Using shadowing with mobile technology to improve L2 pronunciation
Gordon & Darcy (2016, JSLP)	The development of comprehensible speech in L2 learners
Hacking, Smith, & Johnson (2017, JSLP)	Utilizing electropalatography to train palatalized versus unpalatalized consonant productions by native speakers of American English learning Russian
Hardison (2018, JSLP)	Visualizing the acoustic and gestural beats of emphasis in multimodal discourse
Huensch (2016, JSLP)	Perceptual phonetic training improves production in larger discourse contexts
Isbell, Park, & Lee (2019, JSLP)	Learning Korean pronunciation: Effects of instruction, proficiency, and L1
Lee & Lyster (2016, LL)	Effects of different types of corrective feedback on receptive skills in a second language: Speech perception training study
McCrocklin (2019, JSLP)	ASR-based dictation practice for second language pronunciation improvement
Okuno & Hardison (2016, LLT)	Perception-production link in L2 Japanese vowel duration: Training with technology
Parlak & Ziegler (2017, SSLA)	The impact of recasts on the development of primary stress in a synchronous computer-mediated environment

**Table 1.** (continued)

Authors	Title of article
Qian, Chukharev-Hudilainen, & Levis (2018, LLT)	A system for adaptive high-variability segmental perceptual training: Implementation, effectiveness, transfer
Romanelli, Menegotto & Smyth (2015, JSLP)	Stress perception: Effects of training and a study abroad program for L1 English late learners of Spanish
Saeli (2019, JSLP)	Correction timing: Does it affect teacher oral feedback?

Note: CALL: *Computer-Assisted Language Learning*; JSLP: *Journal of Second Language Pronunciation*; LL: *Language Learning*; LLT: *Language Learning & Technology*; SSLA: *Studies in Second Language Acquisition*

## Summary of key components of teaching-oriented papers

### Training / Duration

The duration of training in the studies varies considerably. In the studies in Table 1, duration of training was either relatively short (less than 3 weeks) as in Hacking, Smith, and Johnson (2 weeks, 8 sessions); Huensch (8 days, 8 sessions); McCrocklin (3 weeks, mostly self-directed); and Gordon and Darcy (3 weeks, 9 sessions) or considerably longer. Cerrata and Trofimovich (2018) included 10-weeks of pronunciation instruction, while Foote and McDonough (2017) and Isbell, Park and Lee (2019, this volume) both provided training of at least 8 weeks. Lee, Jang and Plonsky (2015) indicate that longer periods of training are associated with greater improvement

Teaching and learning interventions can be employed face-to-face (Cerrata & Trofimovich, 2018; Gordon & Darcy, 2016; Isbell, Park, & Lee, 2019) or via technology (Foote & McDonough, 2017; Huensch, 2016; Qian, Chukharev-Hudilainen, & Levis, 2018). They may also involve both face-to-face instruction and the use of technology (e.g., Hacking, Smith, & Johnson, 2016; Hardison, 2018; McCrocklin, 2019).

Studies that examine the effectiveness of particular interventions are becoming more common but remain somewhat unusual. According to Thomson and Derwing (2015), teaching/learning-oriented studies are often vague about the specifics of instructional interventions. Technology interventions are often better at being specific (the use of recasts in Parlak & Ziegler, 2017; training for Japanese vowel duration in Okuno & Hardison, 2016). Non-technology interventions are especially valuable in showing how pronunciation instruction is successful in different instructional settings (e.g., learning Spanish word stress during a study abroad in Romanelli, Menegotto & Smyth, 2017). In the papers in Table 1, we

find the use of oral corrective feedback with form-focused instruction (Lee & Lyster, 2016; Saeli, 2019); sensory-learning (Cerreta & Trofimovich, 2018); shadowing (Foote & McDonough, 2017); visualization of tone (Chun, Jiang, Meyer, & Yang, 2015); and the use of electropalatography to learn Russian palatal consonants (Hacking, Smith, & Johnson; 2017).

Ideally, a successful teaching-oriented paper should provide sufficient and clear explanations of the teaching practices included in the study (including the teaching topics, techniques, duration, procedures for carrying out the study, etc.); the teaching setting (including details of the classroom setting or technology-based platform); the participant characteristics and why they were chosen; the data collection materials and methods and reasons for data analysis undertaken; and a report of reliability if there is a rating or coding task. In other words, the methodology should be clear and easy to understand so a replication is possible. Interview questions or questionnaires are also important for replication. Authors should either encourage others to contact them to receive a copy of these materials or share them on an online platform.

This small selection of teaching-oriented papers is presented to illustrate some of the issues that make for a successful teaching-oriented paper for second language pronunciation. Papers may involve perception, production, or both; papers may report interventions using technology or face-to-face teaching. All the papers help us see how teaching and learning can occur in various contexts and under various constraints. Ultimately, we hope to see greater numbers of teaching-oriented papers in JSLP. These are important in a robust connection of theory and practice, and such studies will lead to better knowledge of successful practices and research-based instruction.

## **This issue**

This issue of JSLP contains six full-length articles and three reviews. It is the first issue of three this year, an increase of 50% over the number of articles we published in 2018.

### **Full-length articles**

*Learning Korean pronunciation: Effects of instruction, proficiency, and L1 (Isbell, Park, and Lee)*

In this empirical study, Isbell, Park and Lee investigated Korean learners' improvement of accentedness, comprehensibility and phonological errors following eight



weeks of pronunciation instruction (treatment group) or a similar amount of out-of-class activities (control group). Participants included 19 treatment group learners and 17 control group learners coming from two different L1s (English vs. Chinese) and proficiency levels (beginner vs. intermediate) since these are the independent variables whose effects are explored in a read-aloud and a picture-description task. The pre and post test design measured learners' improvement of accentedness and comprehensibility based on the judgments of 10 NSs of Korean, as well as the improvement of phonological productions (segmentals and syllable structure) based on the coding of errors by two linguistically-trained NS coders. Results showed that learners' proficiency levels influenced their improvement regardless of instructional method since beginner level learners in both treatment and control groups improved on all pronunciation measures. This was not the case for intermediate learners, who had significantly larger gains in comprehensibility. Learners' L1 was a determinant factor for the improvement of phonological errors since Chinese-speaking learners had more syllable-structure errors compared to the English-speaking learners. Task type was also found to be important since learners' improvement was more visible in the read-aloud task compared to the picture-description task. This study found a strong relationship between the accentedness and comprehensibility and a stronger correlation of phonological errors rates with these global pronunciation measures in the read-aloud task.

#### *Correction timing: Does it affect teacher oral feedback? (Saeli)*

This study explored the effect of explicit oral corrective feedback (OCF) timing on the improvement of learners' lexical stress and sentence intonation accuracy following a 10-week general English course for two experimental groups ( $N=20$  for each) and a control group ( $N=21$ ). All groups received corrective feedback for their grammar or writing in essays during their English courses. However, only the experimental groups received OCF on their pronunciation errors, either immediate feedback right after their erroneous production, or delayed feedback a few seconds or minutes following the erroneous production. Learners in all groups were upper-intermediate EFL learners of Farsi or Azeri Turkish. Results of the study showed that both experimental groups had significantly higher lexical stress and sentence intonation accuracy than the control group. The immediate OCF group's improvement in sentence intonation was significantly greater than the delayed OCF. However, gains in lexical accuracy were similar for both groups. Saeli concludes that both types of explicit OCF may bring benefits during pronunciation instruction. However, he recommends choosing the timing of the OCF based on the purpose of a teaching activity. For instance, if the purpose of an activity is to build fluency, delayed OCF may be a better choice compared to immediate OCF.

*The effectiveness of real-time ultrasound visual feedback on tongue movements in L2 pronunciation training: Japanese learners' progress on the French vowel contrast /y/-/u/ (Antolík, Pillot-Loiseau, and Kamiyama)*

Real-time ultrasound visual feedback of the tongue is a method mostly used in the treatment of speech and hearing disorders. This study is an attempt to test this method's effectiveness in second language pronunciation training. Antolík, Pillot-Loiseau, and Kamiyama provided three sessions of French ultrasound-aided pronunciation training to four Japanese learners to learn to distinguish two rounded French vowels (/y/ and /u/) and the difference between these two vowels and the Japanese /u/ sound. These learners, who were the experimental group learners, were enrolled in a 12-week course in French phonetics as were two control group learners. During the training, experimental group learners produced various syllables, words, nonwords or sentences containing the target sounds and observed the movements of their articulators by holding the probe of the ultrasound under their chin. Learners could adjust the position of their articulators by comparing them to those of the native speakers whose traced tongue shapes were presented on a transparency overlaid on the screen of the ultrasound machine. Control group learners did not receive any other training in addition to their French phonetics course. Results of the study showed that three experimental learners improved their production of /y/ and /u/ and increasing the distance between these sounds and the Japanese /u/ whereas control group learners did not show improvement. All four experimental learners expressed positive thoughts about their experience with the ultrasound-aided pronunciation training..

*ASR-based dictation practice for second language pronunciation improvement (McCrocklin)*

In this study, McCrocklin investigated whether ASR-based dictation practice can provide equal or better learning opportunities for pronunciation improvement than a conventional face-to-face pronunciation class. Two groups of students of various language backgrounds were involved in a 3-week pronunciation workshop. Hybrid group learners ( $N=13$ ) received half of their training face-to-face and the other half by practicing with an ASR-based dictation program: Windows Speech Recognition (WSR). Conventional group learners ( $N=14$ ) had only face-to-face training. Pronunciation training included the vowels and consonants that are often problematic for learners. Learners in the Hybrid group were provided with a written guide to make their practice with WSR more helpful. All learners completed a pre- and post-training recording by reading two dialogues and a list of word pairs. According to the ratings of incorrect productions of learners out of total tokens, both groups of learners improved their segmentals equally well which

encourages the use of ASR-based dictation programs for pronunciation teaching. McCrocklin states that this type of practice can be helpful when instructional time is limited since ASR-based practice can be assigned as homework. McCrocklin believes that the transcription dictation programs provide could be helpful as a type of immediate feedback since learners may be motivated to pronounce things more carefully to get a correct transcription by these programs. However, the author notes that teachers should provide guidance for learners about how to use dictation programs effectively to make them helpful for their pronunciation improvement.

*The accommodation of intelligible segmental pronunciation: Segmental repairs and adjustments in English as a Lingua Franca interactions (O'Neal)*

This study focuses on what happens when mutual intelligibility is lost in an ELF context, and which phonetic strategies learners use to make speech intelligible. O'Neal's conversation analysis analyzed the miscommunication occurrences between Japanese and non-Japanese students who were recorded during their conversation homework assignments at the university. The researcher identified twenty-eight segmental repairs which were classified as reactive, preemptive, or reversion repairs. Results showed that reactive segmental repairs, in which the interlocutor initiates a negotiation process due to an unintelligible portion of speech, were the most frequently used type of segmental repair. O'Neal also looked at what kind of segmental adjustments were employed during the segmental repair attempts and found that learners mostly modified the segmentals causing the intelligibility problem instead of inserting or deleting new segmentals. The researcher argues that quantitative findings in experimental studies should be further explained with qualitative data obtained from learners' conversations to better understand what is important in achieving mutual intelligibility.

*ESL learners' intra-subject acoustic variability in producing American English tense and lax vowels (Smith, Johnson, and Hayes-Harb)*

In this study, the authors examined an assumption that L2 speakers' production of L2 sounds involves a larger variation than the sounds produced by L1 speakers. Often this variability is assumed to be the result of a developing but unstable interlanguage system. However, the authors claim that the arguments about the acoustic variability of L2 sounds are not conclusive due to lack of research. Thus, this study has two main purposes: to see how similar or different the vowel productions of L2 speakers are from those of the native speakers and to find out whether nonnative speakers' vowel productions show a larger acoustic variability than those of the native speakers. This study focused on the production of three pairs of English vowels (/i-ɪ/, /e-ɛ/, and /u-ʊ/) by speakers of various L1s

(American English, Korean, Mandarin, and Spanish). Each speaker produced 72 target words with the target vowels. F1 and F2 values were used to measure the intraspeaker variability among the native and nonnative speakers. The authors concluded that there is not always a predictable relationship between the level native-likeness and the acoustic variability of the sounds produced by L2 speakers. Nonnative speakers in the study showed native-like formant values and variability 50% of the time. However, there were also times that the nonnative speakers did not produce native-like formant values but their acoustic variability was stable. In short, the authors suggest that it is not necessarily true that L2 speakers have larger intra-speaker variability than native speakers, whether their L2 sound productions are native-like or not.

## Reviews

This issue of JSLP includes three reviews. Two of these are related to YouTube channels and one is of a recent book. Readers may be uncertain of the value of reviewing YouTube channels, but Sonsaat (2017) demonstrated that it is precisely these sources that many teachers are likely to turn to when looking for information about teaching pronunciation.

**Meichan Huang** reviews *Rachel's English*, a personal YouTube Channel with more than 1.5 million subscribers. This channel has captured the attention of many teachers, researchers and learners in the world. The channel has over 500 videos covering various segmental, suprasegmental and conversational topics. According to Huang, the channel provides thorough explanation of articulatory rules, visual support of the articulatory organs and pitch contours produced in PRAAT, and teaches pronunciation in context. However, Huang adds that there are also inaccurate descriptions and uses of terminology in some of the videos. Despite these weaknesses, Huang believes *Rachel's English* is a good supplementary source for pronunciation teaching.

**Katsuya Yokomoto** reviews *mmmEnglish*, another YouTube channel which started about six years after *Rachel's English* but has an almost equal number of subscribers (1.39 million). This channel has more than 100 videos for English language learners and 19 videos under the pronunciation practice category. In the videos, pronunciation topics are taught with an imitation technique in three steps, including perception activities, shadowing practice, and imitation. Yokomoto emphasizes the benefits of the scripts provided in the videos as well as the value of perception training. However, Yokomoto criticizes the videos for not having sufficient explicit explanations. With some additions, Yokomoto believes the channel may be a good learning source for pronunciation learners.

**Amanda Huensch** reviews *Teaching the pronunciation of English: Focus on whole courses*, edited by John Murphy. This book is designed for pronunciation teacher development and is divided into two parts. In part 1, written by the editor, teachers are presented with basic knowledge about segmental and suprasegmental phonology to strengthen their knowledge base in pronunciation teaching. In Part 2, various authors provide a description of different courses targeting undergraduate or graduate students in pronunciation teaching. Huensch praises the book for taking new members of the pronunciation teaching community into consideration and providing practical resources and materials throughout the book.

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John M. Levis  
English Dept  
Iowa State University  
Ames, IA 50011-1201  
USA  
[jlevis@iastate.edu](mailto:jlevis@iastate.edu)