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## **PUTTING IT ALL TOGETHER: FROM PRONUNCIATION ANALYSIS TO PRONUNCIATION PEDAGOGY?**

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Research on pronunciation has found that intelligibility and comprehensibility can change without a shift in accent (Munro & Derwing, 1995), but do TESOL teacher trainees (TTs) internalize this research, and how do they put this knowledge into practice to devise effective speech analyses and plans for language learners?

Eleven TTs analyzed the same speech sample from the George Mason Speech Archives website (Weinberger, 2014), and then wrote hypothetical lesson plans based on their analysis. Before the analysis activity, all TTs were made aware of the research and terms covering intelligibility, comprehensibility, and accent as well as functional load (Munro & Derwing, 1995, 2006). While some of the TTs wrote focused plans to develop greater comprehensibility, comments and features to address pronunciation in the TTs' analyses suggest that TTs are not quite sure what features are tied to accent and what features to focus on to make learners more intelligible & comprehensible. Findings suggest that more rigorous training and discussion of comprehensibility and intelligibility as well as unpacking of these terms need to be conducted for TTs and integrated into training materials.

### **INTRODUCTION**

In a general TESOL theory and method class, students who are teachers in training (TTs) must discuss teaching oral skills as part of their component of teaching the four skills for ESL. Many of the students have not had a phonetics or phonology course; however, many of them are aware of the IPA. All of them have been or are language learners of a foreign language, and many of the students who take the course are non-native speakers of English. The speaking section of the four skills is designated as a time in the course for students to put many of the resources they have become familiar with and put them all together—from understanding communicative competence to pronunciation to lesson planning.

In previous years, students in the TESOL certificate program merely read the chapters in the speaking section of Celce-Murcia's Teaching English as a Second or Foreign language test, but that did not seem to prepare the TTs adequately for the practice they later complete. This year, in their TESOL theory and methods course, the TTs studied two different chapters covering pronunciation, discussed two different pronunciation in-take sheets as a guide for a pronunciation analysis, and read articles to understand the terms *intelligibility*, *comprehensibility*, and *accentedness* as well as *functional load*. The students discussed segments as having either high functional load-- impeding comprehensibility or low functional load-- having less likelihood of impeding comprehensibility (as defined by Catford, 1988 and in Munro and Derwing, 2006). However, when students returned pronunciation analyses and plans, for the most part, these documents are a tome of epic proportions—proportions that would probably overwhelm a live learner and also waste a great deal of time working on elements that do not

impede comprehensibility. Based on comments from the members in the class, it becomes evident that the teachers in training (TTs) do not or cannot let go of native-speaking expectations for language learners or cannot focus on just a few elements to help further the comprehensibility of the language learner. Past discussions and comments by TTs in the general TESOL method and theory practice class concerning expectations for oral skills sparked this research because a trend among TTs in their comments led me to believe that they conflate the terms *comprehensibility* and *accent* which led to questions regarding what TTs do when they analyze speech samples and develop plans.

## Research Questions

Will teaching the terms *comprehensibility*, *intelligibility*, *accentedness*, and *functional load* help students to create speech analyses that are focused so as to maximize time spent on pronunciation work to benefit the learners in gaining comprehensibility?

Will TTs conflate the terms *accentedness* and *comprehensibility*?

What types of lesson plans do TTs create in order to maximize time spent for comprehensible gains by the language learner?

## METHODS

During the 2<sup>nd</sup> part of the theory and method course, the TTs began focusing on methods to teach the four skills (reading, writing, speaking, and listening) as well as grammar and vocabulary. In the speaking section, the TTs are given an assignment to analyze speech from an adult language learner and prepare a lesson plan based on that analysis. Prior to this assignment, TTs read the Pronunciation and Teaching oral skills chapters in the *Celce Murcia* by Janet Goodwin and Anne Lazarson and are given the readings from Munro and Derwing (1995) in which the researchers tease apart the terms *intelligibility*, *comprehensibility*, and *accentedness*. The TTs are also given brief readings on functional load (Munro and Derwing 2006) as well as the pronunciation profile from Linda Grant (2001) and the scale of comprehensibility from Issacs & Trofimovich (2012). Not only were the TTs given the terms, but a full day of class was utilized to discuss these terms and the scales used by Grant and Issacs & Trofimovich. TTs were also aware of the rubrics used in the TOEFL oral scoring, as these and other rubrics for assessment were analyzed in a prior assessment section of the course.

## Participants & Speech Sample

Since the TTs are not yet in their practice (i.e. working with live language learners) which comes later in their certificate program and since I wanted to have the same speech sample for the simplicity of grading and discussion, the TTs were given an assignment to analyze a recorded speech sample from the George Mason Speech Archive site. A final reason for utilizing this particular speech sample was that it was from a language for which none of the learners had L1 or L2 knowledge. Seven of the TTs were native speakers of English, two were native speakers of Russian (one an adult learner and the other self-identified as an unbalanced bilingual with equal oral fluency but only English writing proficiency), one a native speaker of Mandarin Chinese, and one self-identified as being an unbalanced bilingual of English and Polish with

French as a foreign language. The TTs whose L1 was not English were advanced users of English. Of the seven TTs who were native speakers of English, three were learners of Spanish, one of Italian, one of Arabic, one of French, and one of Hindi. All had studied at least one foreign language, and many had studied more than one language.

## **Materials**

All TTs were asked to listen to the same speaker, Vietnamese Speaker 5 in the George Mason Speech Archive site (Wienberger 2015). The TTs were given both written and oral directions for this assignment. The written directions in the TTs course collab site were as follows:

Look at the George Mason Speech Archive website. Listen to Vietnamese speaker 5 as if this were your student. Complete a speech analysis/profile and lesson plan to address what you say in the analysis. You will most likely want to use Linda Grant's intake sheet and the suggested guidelines for L2 comprehensibility developed by Isaacs and Trofimovich. Please upload these into this tab as a document, but also bring them to Tuesday's class for a short discussion.

TTs asked many questions about the assignment, such as if there was a length limit on the analyses and plan. This was left up to the TTs, with the explicit instruction that they were to treat the recording as if it came from a student they were working with and to focus on the items that impede comprehensibility the most; they were told they should tailor plans with that in mind. They were also urged to remind themselves of everything they had read in their section of pronunciation by reviewing it and to apply this to their analyses and plans.

The eleven (TTs) were given approximately a week to analyze the speech below (Vietnamese male speaker, age 21):

Please call Stella. Ask her to bring these things with her from the store: Six spoons of fresh snow peas, five thick slabs of blue cheese, and maybe a snack for her brother Bob. We also need a small plastic snake and a big toy frog for the kids. She can scoop these things into three red bags, and we will go meet her Wednesday at the train station.

The TTs then turned in the analysis for a grade and also brought them to class to discuss as a group.

The website also provides the recordings transcribed in the IPA and gives some basic biographical background data about the participants. This particular speaker was a 34 year-old male with a length of residence in an English-speaking country (USA) for two years. The site also provides some contrastive analysis of generalizations between the native languages and what the developer of the site terms general American English (GAE). The TTs were asked not to look at the phonetic transcription (Figure 1) or generalizations provided by the site, but the TTs may have done so, and this will be further discussed in limitations.

[bli: kɔ̃n stela: as hɜ tu bʌɪn  
 ɔ̃s tʰɪns wɪθ hɜ frɔm ðə stɔ:  
 sisə? sβū:ns of frɛs sno biʃ  
 faɪ tɪsə? slæbʊʔ ʌbə blu: ɔ̃:s ɛ  
 mɛɪbɪ e snæʃ fɔ xɔ b tɔdɔ  
 bapʔ vi ɔ̃sɔv nit e smɔl b lɑ:tɪs  
 snɛkʔ enɔ biʃ tɔɪ frɔʃ fɔ ðʌ  
 kɪs ʃɪ kæ s:kupʔ ɔ̃s tɪn ɪntɔ  
 ædʔ tɪ ædʔ bæsə en vi viɔ  
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 stɛɪʃə n]

Figure 1. Transcription of passage analyzed by TTS (Weinberger, 2014).

TTs uploaded their analyses and plans into the class collaborative site and then brought them to the following week’s class for discussion. While some of the TTs may have viewed the site’s analysis, many may not have as the TTs were seldom in agreement as to what features to begin with or what plan of action for the speaker might be most important. The TTs also could not agree on how comprehensible the speaker was both in discussion and in their analyses, with some of the TTs stating that the speaker was a beginner, and others stating that the recording was almost completely comprehensible, denoting an advanced learner. Almost all TTs agreed that vowels were not one of the main elements causing issues with comprehensibility for this speaker.

### Data Analysis

TTs plans and analyses were then read, looking for similar trends among them. The analyses contained more than fifteen different characteristics in the speech analysis. Only those that were mentioned by more than one TT were placed in the data set, so any trend could be discerned. TTs then brought in their analyses and plans to share with the larger group. In discussing some of the analyses, TTs were asked to discuss why they had chosen to include items that might not necessarily impede the speaker’s comprehensibility.

## RESULTS

The speech analyses and plans ranged greatly in length and breadth from lengths of one page to nine pages. The TTs also disagreed whether supra-segmentals or segments caused the greatest difficulty in both intelligibility and comprehensibility. The TTs also disagreed as to which segments were of greatest importance impeding comprehensibility as can be seen in the summary graph (Figure 2) of the features most noted by the TTs.

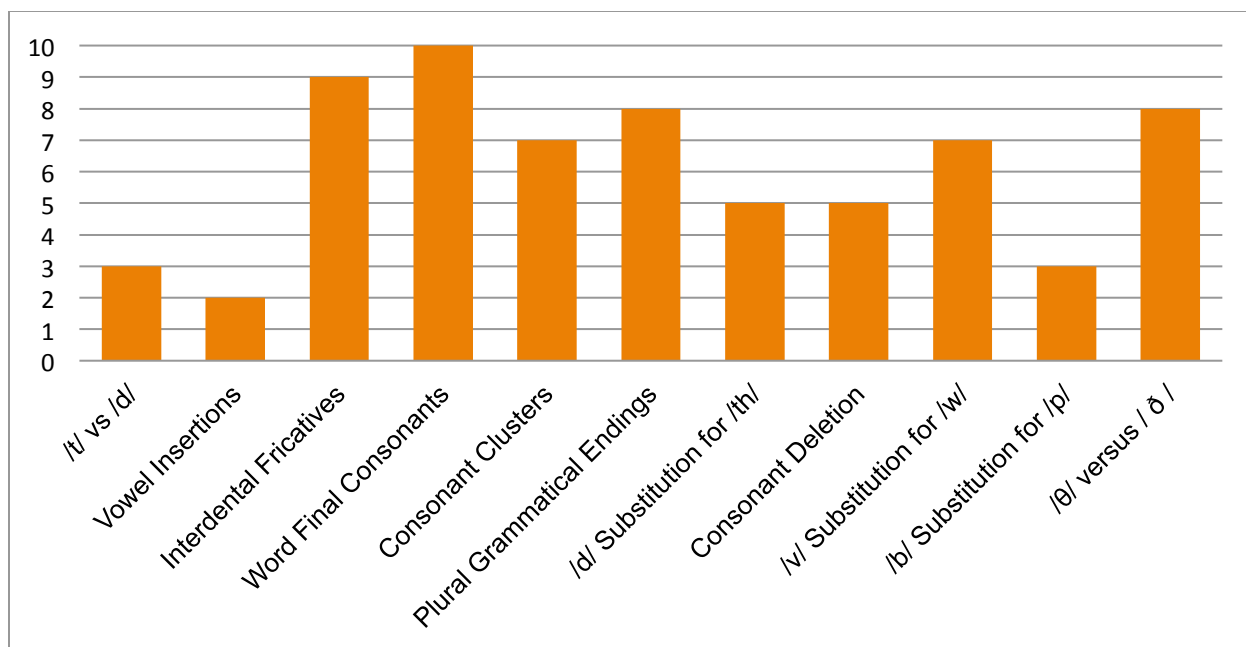


Figure 2. TTs speech analysis with most prevalent features presented as needing pronunciation focus.

Many of the TTs came up with lengthy analyses, but could not focus on just a few main items to develop a plan of action, as Linda Grant's pronunciation profile notes to do. For example, eight of the eleven TTs mentioned the speakers difficulty with /θ/ versus /ð/, but this distinction will probably not impede comprehensibility, and according to Catford has a low functional load (9-15). Of particular interest was that some of the participants noted that there were problems with interdental fricatives, but others made the distinction that there was a problem of voicing and voiceless or θ vs ð, as reflected in Figure 2. In fact, many of the participants noted both (interdental fricatives and θ vs ð) as being an issue and needing to be addressed. It is unclear on their assessments whether the TTs are not sure what interdental fricatives are or whether they see the replacement of the voiceless for the voiced as a different issue.

Another example of TTs pinpointing items that should not impede comprehensibility would be the /d/ substitution for /θ/ as well as a lack of grammatical endings. While these features may mark a speaker as non-native (i.e. being accented), it will probably not impede the overall comprehensibility of the speaker. Interestingly, some of the features that would be predictive of impeding comprehensibility were those least identified overall by the TTs, such as the vowel insertion or consonant deletion.

There were some elements in the analysis that most of the TTs noted that probably will have high functional load or impede comprehensibility, such as word-final consonants and consonant deletion, although some of the TTs did not further examine the environments in which consonant deletion was causing the greatest issue, and the TTs who noted word-final consonants as needing to be addressed did not always note if there was a pattern of deletion that needed to be particularly addressed and practiced such as final rhotic sounds in words such as *her*, *store*, *for* and *brother*. Another issue with this analysis is that, similar to the interdental fricatives and θ vs ð, TTs often note a problem with final consonants and consonant deletion, but it is unclear if TTs

are addressing the same issue. From their analyses, it is unclear that the TTs perceive this as the same problem or a different one; however, since they used two different terms, these two items (final consonant & consonant deletion) were placed in separate categories or as two different issues.

Based on these results, it became imperative to look at the data in a different way to see what percentage of the majority of the assessments were addressing items that might not push the learner to greater comprehensibility. Figure 3 depicts the percentage of all of the issues discussed out of all the features picked out by more than one TT. For example, if we add the items that are projected to have lower functional loads according to Catford (1988), then the TTs in training pick out over 30% of the features in the assessment as needing to be addressed that may not actually need to be addressed ( $\theta$  vs  $\delta$ , interdental fricatives, /d/ for /th/ substitution, grammatical endings, and /v/ substitution for /w/) meaning that TTs are neither maximizing their time nor their future students' time, if they continue with similar assessments and lesson plans developed to address features from those assessments.

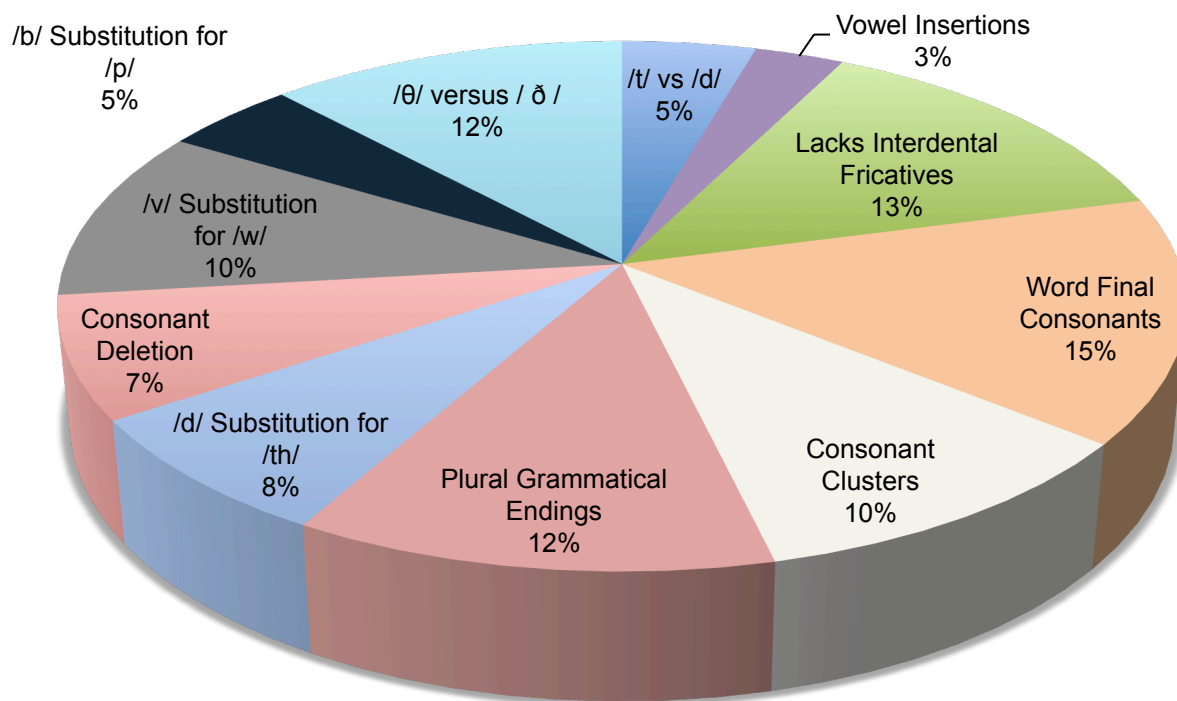


Figure 3: Percentage of all main features identified as needing to be worked on with the speaker according to TTs analyses.

## DISCUSSION

From these results, the following items become clear: 1. TTs may still be using the native speaker as the pronunciation model, even subconsciously (as will be further discussed); 2. TTs

do not fully understand the difference between accent & comprehensibility, or again, are unwilling to let go of native speech as the default paradigm for their learners' pronunciation; 3. TTs need to more fully understand the term of functional load in order to efficiently develop lesson plans for learners.

In the post activity, TTs brought their assessments to class to share and discuss them. When I asked if the TTs were focusing on greatest comprehensibility and not necessarily accent, one TT stated that she thought that language learners will want to sound like native speakers of English, so she wanted to point out every feature that was not native-like. It must be noted that this TT is a native speaker of Russian and continued to explain that she felt that many of her students would be learning to conduct business and would be unfairly judged if they did not sound native-like. When I asked if that was a reasonable goal for all learners, many TTs stated that while not a reasonable goal, it might be the learner's goal.

What these results do indicate is that TTs do not fully understand the difference between accent & comprehensibility or their interplay even though these terms and their correlations were explicitly discussed in class, or the TTs are unwilling to let the native speaker as pronunciation model go. It will become important to tease these two apart in training teachers.

Also apparent is that the TTs are perceiving different features as having functional load or do not understand that term clearly. The Celce-Murcia chapters that the students read in their training focus on communicative competence, but never directly discuss clearly which features will cause the greatest impediment to that competence, although the Lazarson chapter does introduce terms such as *accuracy* and *fluency* while the Goodwin chapter creates awareness of the segmental versus the suprasegmental debate as well as advocating teachers to set realistic goals for the learners. Even having read these items, the TTs still seem to be pointing out features that are merely by-products of accent, not impositions to comprehensibility.

Over half of the TTs created lengthy lesson plans for minimal pair work with phonemes that may not impede the listener, a result that suggests the concept of functional load needs to be better covered in teacher-training materials to be able to help TTs apply it to their lesson plans, particularly regarding what causes the greatest lack of comprehensibility; otherwise, TTs run the risk of creating assessments and lesson plans that could potentially overwhelm the learners.

While the discussion of functional load may not induce the TTs to give up their conceptualization of the native-speaker as the goal for their learners pronunciation, as noted by the TT who stated that many language learners have a goal to sound native-like, it may clarify for the TTs more concretely just what realistic and sound goals are for the language learner so that they can put all of the information together to move from pronunciation pedagogy to sound practice.

### **Limitations**

First, one of the limitations of this research is that the site provides both a phonetic transcription of the speaker and all speakers for that matter as well as generalizations about the speaker's accent for both language group and the specific individual. Some of the TTs may have looked at these generalizations to complete their analysis which is a limitation, in that this could have induced the TTs to create more analyses than they normally would have written for a live learner. For future research, only the recording should be provided to ensure that the participants are not swayed by the site's analysis.

It must be noted that the teachers were working with a recording, so what they do with actual learners may be different, as the human element may force them to edit their analyses and plans. However, that one TT out of the eleven did edit her plan from her analyses to only three major elements leads me to believe that she envisioned the plan as being written for a real learner, as the instructions noted. If that is true as the assignment required, then it can be expected that the TTs will construct analyses and lesson plans similarly as they did in the exercise and overwhelm their learners.

## ABOUT THE AUTHOR

When Janay Crabtree is not contemplating perception of language learners, second language acquisition, language teaching, and language teachers and their training, she enjoys running after her two spritely children and cycling. She is currently the lead faculty at the University of Virginia's Center for American English Language and Culture where she administrates the TESOL Certificate Program, teaches linguistics and ESL, and directs a summer English for Academic Purposes Program. [jc9ne@eservices.virginia.edu](mailto:jc9ne@eservices.virginia.edu)

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