

Bringing pronunciation instruction back into the classroom:
An ESL Teachers' pronunciation "toolbox"
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Abstract

Pronunciation is difficult to teach for several reasons. Teachers are often left without clear guidelines, and are confronted with contradictory practices for pronunciation instruction. To date, there is no well-established systematic way of deciding what to teach, and when and how to do it. Another challenge is the lack of immediate visible results, or a lack of carry-over: very often, students who practice a given pronunciation feature in class do well, but the minute they turn their attention to the message content, the practice effect vanishes. As a result of these difficulties, teaching pronunciation is often secondary, and teachers don't feel comfortable teaching it. Yet, researchers and teachers alike agree that pronunciation instruction is important and efficient in improving intelligibility and comprehensibility. In this paper, we describe the development of a new pronunciation curriculum for communication classes currently being implemented in an Intensive English Program. Pronunciation instruction functions as a modular component fully integrated into the learning outcomes across all levels of proficiency, addressing both the lack of carry-over, and the difficulty to teach pronunciation at early levels. Our goal is to provide teachers with enhanced confidence in applying strategies for pronunciation instruction that will contribute to their teaching "toolbox".

Introduction: Research and Rationale

Pronunciation is difficult to teach for several reasons. Teachers are often left without clear guidelines, and are confronted with contradictory purposes and practices for pronunciation instruction. Indeed, there is no well-established systematic way of deciding what to teach, and when and how to do it (Derwing & Foote 2011). For example, a common problem is deciding whether to focus on segmentals or on suprasegmentals, and to what extent (Prator, 1971; Jenner, 1989; Derwing et al. 1998). A related challenge is how to address production and perception. While there is ample evidence in the literature that both are necessary in a balanced approach to pronunciation development (e.g. Bradlow et al., 1997), the guidelines for teacher training and classroom materials are not well-defined. Another obstacle for teachers is the lack of carry-over of apparent improvement: very often, students who succeed with a given pronunciation feature practiced in class lose it when they attend to meaning (Bowen, 1972). A further problem is the general lack of guidance from research in determining level-appropriate pronunciation activity. Only few researchers, such as Jenner (1989) and Murphy (1991), theorize instructional differences based on proficiency level. In fact, most materials are written only for high-level learners. To date, these complexities have precluded adequate language teacher training in pronunciation, with the result that teachers lack knowledge and confidence. In turn, pronunciation instruction is relegated to the sidelines of the curriculum if attended to at all (Derwing, 2010). Yet, researchers and teachers alike agree that pronunciation instruction is important and efficient in improving intelligibility (Derwing et al., 1998; Morley, 1991; Prator, 1971).

In our own context of teacher training and language learning at Indiana University, we have experienced comparable difficulties. Although currently, students in the MA TESOL program are required to take a course in methodologies for teaching pronunciation, the curriculum of the Intensive English Program (IEP) in the same department does not specifically articulate goals, objectives, and outcomes for pronunciation development. For this reason, efforts have begun to link activity in this course more directly to the curriculum of the IEP.

Based on the above concerns, the research literature on pronunciation development, as well as more general concerns about curriculum implementation, we have shaped the development of a pronunciation curriculum with the following guiding principles:

1. Selection of materials and instruction priorities are research- and experience-based.
2. Pronunciation instruction incorporates both production and perception.
3. Pronunciation instruction is embedded, both within the curriculum as a whole, and within each lesson locally: Pronunciation is not taught separately from, but rather becomes an integral part of, general language instruction.
4. The curricular component is adaptive: there are different selections and priorities for each level.
5. Pronunciation instruction starts in the early levels.

Research provides insights into which pronunciation elements impact comprehensibility and foreign accent, and which – by extension – should be the focus of a pronunciation

curriculum (Anderson-Hsieh et al, 1992; Gimson, 1970; Koster and Koet, 1993; Munro & Derwing, 1999), sometimes also considering specific levels (Missaglia 1999; Jenner 1989). Research also suggests that training in perception improves articulation abilities (Bradlow et al., 1997, Rvachew et al., 2004), and providing pronunciation instruction early could maximize the benefits of L2 exposure given evidence (e.g. Best & Tyler, 2007) that the bulk of perceptual and phonetic learning in late-onset SLA takes place within the first year of intensive exposure to the L2 (Principles 1, 2, 4, 5). Research on curriculum implementation mostly reveals a history of failure unless innovations are fully embraced by the teachers whose activity directly impacts the uptake of those innovations in student learning (Fullan, 2007, Rogan, 2007). To this end, the beliefs and prior theorized practices of teachers (Johnson, 1999) must be taken into consideration when designing and implementing innovative curricular components (Principles 1, 3, 4). Following is the description of both the process and product of bringing pronunciation instruction back into our classrooms while enhancing our teachers' pronunciation "toolbox" with knowledge and confidence.

Context: The Intensive English Program at Indiana University

The Intensive English Program (IEP) at Indiana University is a program for pre-matriculated students who range in proficiency from true beginning to low advanced. About two thirds of the incoming students plan to enter undergraduate programs and one third graduate programs. Seven levels of instruction are offered, and students are in class between four and five hours daily. We offer six 7-week sessions per year. Most students enroll in three or four sessions sequentially, and the majority initially test into Level Four, (low) intermediate, or above. The principal orientation of the instruction targets English for General Academic Purposes. The curriculum is based on specified "Learning Outcomes" (LO) for both Literacy and Oracy. Currently, there are no specific pronunciation outcomes although the successful accomplishment of oral communication outcomes necessitates intelligibility and comprehensibility. Without specific guidance on how to develop these abilities, pronunciation is addressed haphazardly depending on available textbooks, tasks, and teacher awareness in Levels One through Five. A dedicated pronunciation elective is offered for Level Six or Seven learners, meeting the needs of only a small subset of students.

Curriculum Development Process

Teacher Survey

At the beginning of the pronunciation curriculum development process, the teachers in the IEP were surveyed regarding their beliefs and practices of teaching pronunciation. The main motivation for the survey was to understand the status of pronunciation instruction in daily practice in the IEP. A related goal was also to include the teachers in the curriculum development process to promote "buy in" for eventual implementation. In total, 14 teachers

participated; all were native speakers of English. They reported on average 5.5 years (range: 5 months to 24 years) of teaching experience.

The survey was administered anonymously on a voluntary basis. It consisted of 15 questions in four categories: the importance of pronunciation instruction for student success; what pronunciation elements are central to intelligible pronunciation; the relative importance of instruction on specific elements at different proficiency levels; and, whether and/or how teachers teach pronunciation. The ratings were given on a Likert scale of 1 (crucial /very important) to 7 (irrelevant). In regard to the first category, analysis of responses shows that the teachers as a whole consider pronunciation instruction very important if not crucial for the lives of their students across almost all contexts and situations. For communication classes, the totality of responses indicated a rating of either 1 or 2. No respondent gave pronunciation a rating below “very important”. For daily life, 92 percent gave a rating of either 1-2 or 3-4 (“important”). Only 8 percent indicated a rating of 5 (“somewhat important”). No rating was below 5. Across all situations/contexts, 92 percent of the ratings indicated 3 or 4, (“important”), and 8 percent indicated 2 (“very important”). There was no significant correlation between the amount of teaching experience and the importance attributed to pronunciation (Pearson’s $r = 0.12$, $p > .6$), suggesting that both experienced and novice teachers converged in their positions.

In the second category, participants were asked to indicate which pronunciation elements they thought were the most important for students to master. Only 13 participants answered this question. There were 10 items to choose from (see Figure 1) and two items marked “other”, for which they could indicate non-listed features. The ranking of each item included in the top-five list for each participant was transformed in a point value: items ranked first were given 5 points, those ranked second were given 4 points, a third place gave 3 points, a fourth place 2 points, and each item ranked last in the list was given 1 point. The maximum possible weight to be assigned was 65, which would be the maximum point value obtained by an item that has been ranked first by all 13 respondents. The results are presented in Figure 1. There was convergence of opinion around intonation/stress, rhythm, perception ability, clarity of individual sounds (consonants, enunciation), and specific vowels.

In the third category, participants were asked whether they thought certain pronunciation features should be taught at specific times or in relative amounts in relation to each other. Teachers were asked to rate the importance (using the same scale of 1 – crucial/very important – to 7 – irrelevant) of seventeen pronunciation elements: five connected speech/phonotactics, four suprasegmental, and eight segmental features (five for vowels and three for consonants) for three different proficiency levels (see Appendix A). Scores were first converted into points (inverted as above, with a score of 1 receiving 7 points, and a score of 7 receiving 1 point) and into percentages. Rhythm was split between suprasegmental and connected speech features, and flow was counted as a connected speech feature. We adjusted the percentages relative to the number of items in each category to avoid deflating the relative importance of a small category.

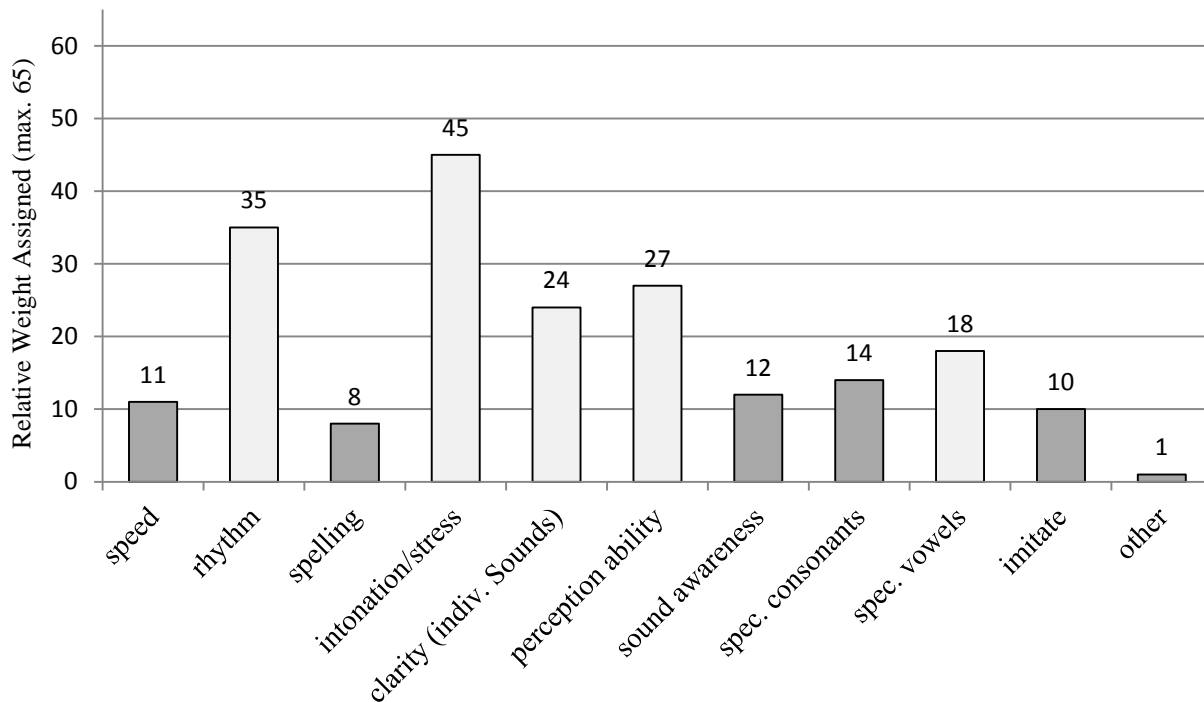


Figure 1: Relative weight assigned to different pronunciation elements. The “top five” are indicated through lighter shading.

The results indicate (see Figure 2) that the amount of instruction on specific features should shift across levels of proficiency. More specifically, while the amount of instruction focusing on segmentals diminishes with increasing proficiency, attention to suprasegmentals increases. In other words, learners with higher levels of proficiency should pay more attention to suprasegmentals relative to segmentals, and this relationship is reversed for learners at lower levels of proficiency. Instruction regarding phonotactics and connected speech was seen to need about the same degree of attention across all levels of proficiency but never outranked either segmentals or suprasegmentals.

However, in spite of their clear appreciation of the importance of pronunciation instruction and detailed awareness of which features should be addressed, how much and when these features should be addressed across the levels of the program, the majority of the teachers do not teach pronunciation at all (71 percent). Some provide a diagnostic task early in the course (28 percent), but only two of them (14 percent) indicated that they also use a post-test with a specific pronunciation rubric for evaluation.

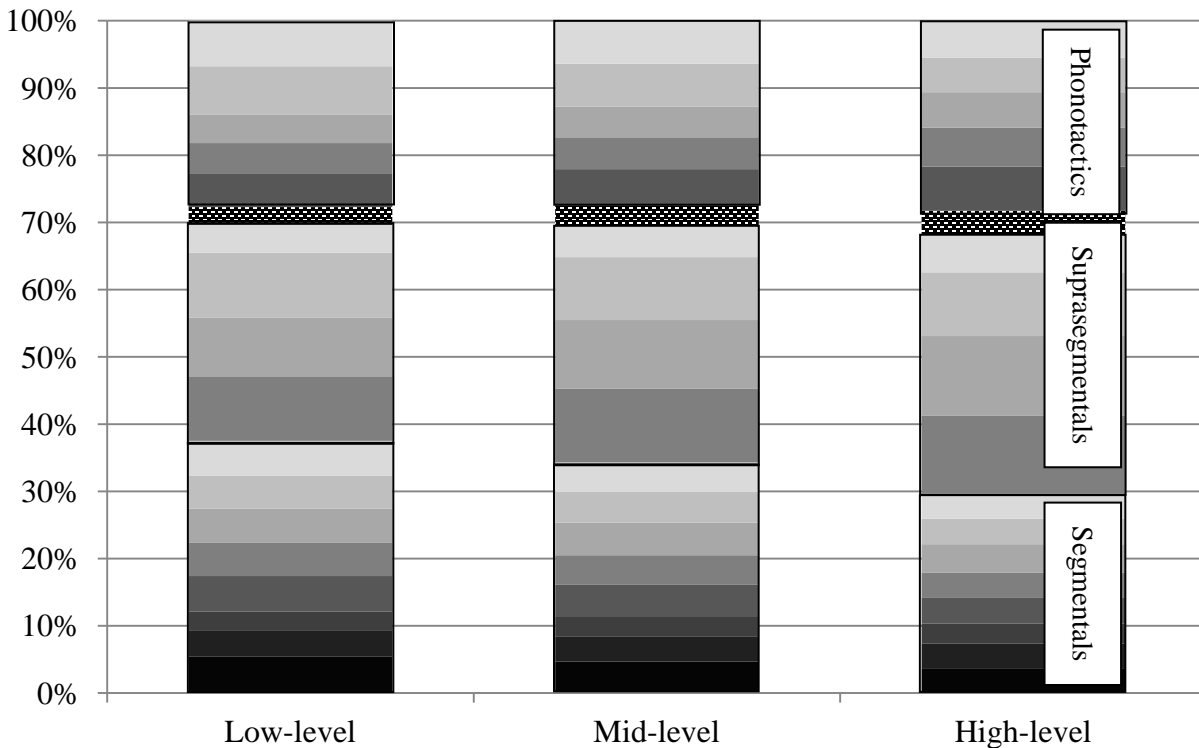


Figure 2: Relative importance of instruction on each element for each proficiency level. The lower area represents the proportion of instruction spent on segmental features; the middle-area is the proportion of instruction spent on suprasegmental features, and the upper areas represent the proportion of time spent on phonotactics/connected speech features. The dotted area represents rhythm, split between suprasegmentals and connected speech.

The results clearly showed that teachers find pronunciation difficult to teach. Reasons included the amount of time available (43 percent), lack of training (25 percent), and the need for more guidance and institutional support (18 percent) for implementing both time and training to facilitate pronunciation teaching. This confirms previous research. However, an important outcome of the survey was the teachers' overall consistency in ascribing particular elements to specific levels of instruction and the relative importance among these elements. Although little research has been done on which elements are best addressed at different levels of proficiency, the results of the teachers' survey is strikingly similar to those theorized by Jenner (1989).

Details of the curriculum

We now detail what elements are prioritized for three levels: low-levels (true beginners to high-beginning), mid-levels (low-intermediate to intermediate, and high-levels (high intermediate to low advance) of proficiency.

Low-levels: Survival.

In low-levels, the major focus targets the basic phonemic inventory in order for learners to start parsing the speech stream (see Table 1). Segmental features (particularly consonants) that

have high functional load are prioritized. Others which are said to have less functional load (such as clear and dark [l], or [θ] [ð], exchangeable with [s] and [z] without much intelligibility loss on the part of the native listeners) are more peripheral at first, but can be integrated as soon as the most fundamental consonantal contrasts are in place. More research is needed, however, on defining a hierarchy of consonantal contrasts for intelligibility purposes. In the suprasegmental domain, understanding the basic stress timing of English and the fundamental intonational shape of declarative and simple interrogative sentences can help shape the discourse and give listeners a basis for repair. Crucially, instruction at lower levels establishes the foundation upon which other elements build. It is strongly word-based: pronunciation elements are introduced through the specific words in which they occur; sentence-level elements can be introduced as soon as learners have sufficient proficiency to formulate sentences. The instruction in low-levels is highly contextualized: each element is fully integrated in its function. Metalinguistic descriptions are avoided, as learners do not know the necessary vocabulary. Each element derives from real-world, survival functions, the goal being basic intelligibility and negotiation of meaning. Lexical items are introduced with their stress pattern. To a limited extent, phoneme-grapheme correspondences are addressed in order to enable students to spell out words or names for clarification.

Table 1: Pronunciation Elements for Low-levels

Segmentals	Element of phonics (spelling)
	Practice alphabet; consonants of English
	Vowel length
	Final consonants and clusters
Suprasegmentals	Basic intonation
	Intonation: declarative, question, request vs. apology
	Sensitize to stress-timing; stress perception

Each of these elements can be integrated into the content of communicatively-oriented lessons. When a new word is introduced, relevant pronunciation features will be brought to learners' attention.

Mid-levels: Clarity and awareness.

For mid-levels, the major goal remains the minimization of the negative effects of pronunciation on intelligibility (see Table 2). The basic phonemic inventory is assumed to be in place, possibly with isolated L1-dependent difficulties specific to each learner. At this level, relatively accurate vowels and vowel reduction are required for ease of comprehension. Stress and intonation play a central role in ensuring that gaps in specific segments interfere minimally

with overall discourse. Sentence stress and the production and perception of strings of words, or strings of sentences is now the focus of increasing suprasegmental work. Word-level elements are still important but of less relative weight.

Certain elements might be introduced with metalinguistic speech, but the focus of instruction remains on embedding pronunciation within the function being addressed. One aspect of mid-level instruction is making students *aware* of phonotactic and connected speech phenomena, in order to develop their own feedback. Through presentations, conversations and listening activities, the learners will focus on suprasegmental awareness and imitation. Accuracy can be expected when learners focus on the pronunciation form; however, carry over exercises can be gradually implemented to encourage attention to form when the focus is on meaning.

Table 2: Pronunciation Elements for Mid-levels

Segmentals	Elements of phonics
	Tense and Lax vowels
	Final consonants and clusters (review of low-levels)
Suprasegmentals	Word stress
	Sentence stress, Intonation
Phonotactics	Vowel Reduction (Schwa)
	Rhythm
	Linking

High-levels: Accuracy / Attention.

In high-levels, the focus is on accuracy even when attention is on meaning (see Table 3). The main goal is now to facilitate and develop carry-over. The emphasis shifts from the amount of speech listeners can understand (intelligibility) to the degree of difficulty in doing so (comprehensibility). The teacher will expect phonological accuracy even when the focus is not on pronunciation, in order to practice and establish carry-over. It is only in the higher levels that pronunciation instruction can become independent of its function, and can be taught “on its own.” This can entail metalinguistic/linguistic terminology, specific descriptions of phonological phenomena, metacognitive awareness, or also introducing parts or all of the phonetic alphabet, with the goal of providing students with appropriate tools to analyze, control and monitor their own speech.

At this level, students have to adjust to academic register for better participation in the academic community. Individual difficulties with specific articulations can be addressed through common resources made available to students outside of class-time or through individual tutoring. All major elements of English pronunciation should be in place. Activities that develop

vocabulary for the academic register (i.e. debates, presentations, interviews) can be used to develop carry-over, through having students pay attention to form while focusing on meaning.

Table 3: Pronunciation Elements for High-levels

Segmentals	Vowels (+phonics), or individual needs
Suprasegmentals	Intonation patterns, sentence stress
	Stress
Phonotactics	Linking , phonotactics
	Register awareness

Discussion and conclusions

While the specifics of our “toolbox” may not be generalizable to other programs directly, the principles behind its development are: The first principle is to bring the research and the experience of the teachers in the program together (*Research- and experienced-based*). The second is to engage learners in explicit listening and speaking practice (*Both production and perception*) across the levels of proficiency. The next principle is to implement pronunciation instruction throughout the curriculum, and within each lesson (*Embedded*). In low-level lessons, instruction is fully contextualized, and inseparable from its direct function. In mid-level lessons, instruction still focuses on use within meaning-based activities, but can selectively incorporate awareness raising activities. Only in high-levels, pronunciation starts to be taught independently, incorporating more metalinguistic knowledge. The fourth principle is to create activities that are appropriate for specific levels of proficiency (*Adaptive*). Finally, it is important to address elements of pronunciation from the beginning of instruction (*Start early*).

The potential benefits of this curricular component are twofold. Students will learn from the beginning that pronunciation for intelligibility/comprehensibility is normal and necessary; Teachers will learn more about pronunciation and its instruction, and they will also become more confident about teaching pronunciation and giving pronunciation feedback as a regular part of language instruction. We argue that pronunciation instruction should not be separated from the rest of language instruction and should be a constant and integral part of every lesson.

Of course, several potential difficulties remain to be addressed. First among them, is the ongoing lack of materials including task-types for specific elements that can be adapted to the curricular content already in place. Celce-Murcia’s et al. (1996) communicative framework for pronunciation instruction with its sequence of five task-types is very well-suited for advanced learners, but some reorganization of these task-types seems necessary for low and mid-level learners. For example, the first two steps require metalinguistic analysis/description of phonological phenomena, a significant stretch for true beginners who cannot yet formulate sentences. Even “learner appropriate” descriptions of articulations will be difficult to adjust to the lowest proficiency levels. It is more likely that only the third step, “controlled practice with

feedback,” is effective from the beginning. Steps 2 and 4 (“listening discrimination” and “guided practice with feedback”) could be added at the mid-levels, but at high-levels only could all five steps be implemented.

Another difficulty is the ongoing need for additional teacher training, particularly in the context of actual practice, to develop their ability to embed pronunciation instruction in an established curriculum. Only in this way will pronunciation become a normal component of language teaching rather than a separate, disconnected, and sometimes devalued activity for both teachers and learners.

In spite of the necessary research and training yet to be done, the outcomes of this curriculum design project are providing guidance for the development of specific tasks for pronunciation elements appropriate for different levels of proficiency that can be adapted and embedded within the content of a particular curriculum.

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Appendix A: Questionnaire part asking to assign importance to pronunciation features according to level

If pronunciation were integrated into the curriculum, how would you rank the importance of teaching of the following items on a scale of 1-7, with 1 being very important, and 7 being unimportant? (here is a reminder of the scale:)

<i>very important / crucial</i>	<i>important</i>	<i>somewhat important</i>	<i>irrelevant</i>
1	2	3	4
		5	6
			7

Items:		For low level students (1-2)	For mid-level students (3-5)	For high level students (6-7)	Additional Comments (Optional)
Articulation of consonants in general					
Specifically :	Individual consonants				
	Flapping of T and D (The [ɾ] in “water,” “bottle,” etc.)				
	Other allophones (Ex: [pʰ] in ‘pie’ vs. [p] in ‘spy’)				
Others (please specify: _____)					
Articulation of vowels in general					
Specifically :	Individual vowels				
	Vowel duration (long/short)				
	Tense vowels vs. lax vowels (Ex: beat vs. bit, boot vs. book)				
	Schwas and vowel reduction (“communication”)				
Diphthongs / Vowel blends (boy, bite, bout)					
Others (please specify: _____)					
Suprasegmentals in general					
Specifically :	Word stress (<i>present</i> vs. <i>present</i>)				
	Sentence-level focus (“I don’t <i>love</i> her” vs. “I don’t love <i>her</i> ”)				
	Intonation (e.g. questions)				
	Rhythm (stress-timed)				
	Flow / Fluency				
Others (if needed) (please specify: _____)					
Connected speech/phonotactics in general					
Specifically :	Linking (Ex: picked up → like ‘pick-tup’)				
	Contraction (going to → gonna)				
	Syllable-initial clusters (i.e. <u>pl</u> ay, <u>sp</u> ot, etc.)				
	Syllable-final consonants and clusters (i.e. be <u>t</u> , ki <u>ds</u> , te <u>xt</u> , mon <u>th</u> s, etc.)				
Other issues (please specify: _____)					

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