Using Self-assessment in ESL Pronunciation Classes

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Abstract

Second language learners often find it difficult to assess their own pronunciation; however, research shows that self-assessment activities improve learning outcomes and that learners develop more autonomy as they become increasingly proficient at regulating their performance. Unfortunately, studies that look specifically at self-assessment of pronunciation are limited. Therefore, we seek to determine if self-assessment activities can improve L2 English learners' pronunciation of some consonants that are typically challenging: "th" and "h." Learners tend to substitute the "th" sounds /θ, ð/ with /t, d/ or /s, z/, and, for some L1s, to delete /h/, and, in some cases, insert /h/. Advanced ESL learners from a variety of L1 backgrounds completed a read-aloud pre-/post-test, which established progress in the pronunciation of these sounds. The test group completed weekly self-assessment activities where they analyzed their own recorded speech. The control group did not complete the self-assessments. Test group participants were also interviewed regarding their impressions of the self-assessment activities and their pronunciation progress. Qualitative data suggests that the self-assessments improved learners' attitudes and global awareness of their strengths and weaknesses. Quantitative analyses show that both groups improved on /h/ and /θ/, but not on /ð/. Discussion addresses group differences from a developmental viewpoint and offers suggestions to improve self-assessment of L2 pronunciation.

Keywords: *Self-assessment, pronunciation, consonants.*

1. Introduction

Second language (L2) researchers and pedagogues often explore innovative ways to enhance student learning. Until recently, pronunciation issues have been neglected in L2 classroom practice and research [10]. Thus, learners are often left to their own devices to judge whether or not their pronunciation is adequate in a broad range of learning contexts. Indeed, they often find it difficult to assess their own pronunciation [11], not knowing which aspects and cues to focus on [2]. The present study thus aims to determine if self-assessment can adequately support learners' developing L2 pronunciation, especially when it comes to persistent errors in proficient learners.

2. Literature review

Self-assessment is a component in the teacher's arsenal of formative evaluation tools. In self-assessment, L2 learners judge their own performance with the goal of improving their L2 skills. Research has shown that self-assessment has a positive impact on learning outcomes [6]. The learner's ability to self-assess effectively is an acquired skill, which may have an important impact on learning progress. Current research also indicates that teacher guidance throughout the self-assessment process is critical to building this skill [4]. As students become more proficient at monitoring their performance, they become more engaged with the course material, form more favourable attitudes towards their L2 learning, are better equipped to undertake more challenging learning tasks [4], and develop essential self-regulatory skills that foster learner autonomy [13].

Self-assessment research in L2 pronunciation is limited [11]. Investigations into the pronunciation of vowels [9] and suprasegmentals [5] have shown that self-assessment leads to improvement, but to our knowledge, no studies have specifically targeted English consonants. Therefore, the current study investigated some consonants that are problematic for ESL learners: "th" and "h". Learners tend to substitute the phonemes /θ, ð/ ("th") with /t, d/ or /s, z/, "thank" → "tank" or "sank"; "there" → "dere" or "zere" [1, 2, 12], and that, for some L1s, particularly French, to delete /h/, "heart" → "eart", and, in some cases, insert /h/, "apple" → "happle" [7, 12].

3. Method

Participants (N=22: m=5; f=17) were recruited from advanced ESL pronunciation courses at a francophone university in Montreal. The courses were given in an online, synchronous format. Participant L1s were French (N=12), Chinese (N=4), Spanish (N=3) and other (N=3).

All participants completed pre- and post-test recordings remotely via the university's online learning platforms at Weeks 2 and 15 of the semester. The tests consisted of 25 sentences composed of high-frequency words. Here are example sentences with target segments in red :

(#3) My brother is thirty-nine years old. He works in a large office building.

(#6) Montreal is my favourite hockey team, but they haven't been winning recently.

Two experienced English pronunciation instructors judged consonant accuracy in all sentences. A third English instructor settled cases of disagreement. All raters were native English speakers. The rate of agreement was very high, ranging between 90.4 and 100 percent, depending on the segment.

Table 1. Rates of inter-judge agreement in pre- and post-test tasks

Segment	Pre-test Agreement	Post-test agreement
/h/-deletion	94,8%	99,6%
/h/-epenthesis	99,5%	100%
/θ/-substitution	92,9%	97,5%
/ð/- substitution	90,4%	90,8%
Total tokens	97%	98,8%

Throughout the semester, the test group (N=11) completed 10 low-stakes self-assessments which guided them in progressively more comprehensive weekly evaluations of their own performance (Appendix A). The instructor subsequently commented on their self-assessments. The control group (N=11) was not assigned self-assessment activities.

In order to gain a deeper understanding of the impact of the self-assessment activities, online interviews were conducted at the end of the course. Most test participants (N=9) took part in this second task. Interviewees were asked how they felt about their pre- to post-test performance, with some questions specifically targeting their pronunciation of "th" and "h."

4. Analyses and results

For each group, mean error percentages were calculated for the four categories of target segments (Figure 1). Results were submitted to paired- and independent-samples t-tests.
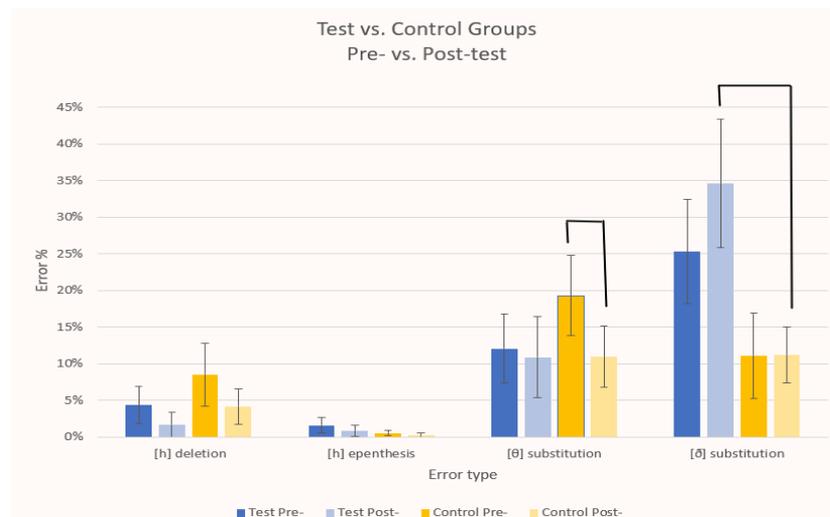

Figure 1. Performance in pre- and post-test

Figure 1. shows that both groups improved from pre- to post-test for all error types, except for /ð/ substitution. For /h/ deletion and /θ/ substitution, the control group was weaker than the test group in pre-test, but made considerable improvement in post-test, significantly so for /θ/, as shown by the black connector line (t (10) = 2.61, $p < 0.05$). As for /ð/ substitution, the control group remained the

same while the test group had more errors in post-test, leading to a significant difference between the test and control groups for /ð/ (t (20) = 2.69, $p < 0.05$).

Concerning error types, for both groups in pre-test, /θ/ substitution errors were significantly higher than both types of /h/ errors ($p < 0.05$). This was maintained in post-test, except that /θ/ versus /h/ deletion only neared significance ($p = 0.07$) whereas /ð/ substitution versus /h/ errors reached significance: /h/ deletion: t (21) = -2.52, $p < 0.05$; /h/ epenthesis: t (21) = -3.99, $p = 0.01$.

Comments from the interviews and self-assessments were positive. Learners considered the self-assessment activities with teacher feedback useful. Many found the activities difficult at first, but were able to develop their skills over time, empowering them to extend this type of self-monitoring to their daily lives. Self-assessment helped raise awareness of their pronunciation strengths and weaknesses. Interestingly, several participants noted that they paid more attention to suprasegmentals than to segmentals. Ultimately, all participants felt that their English pronunciation had improved thanks to self-assessment.

5. Discussion

Quantitative results show that errors on /h/ are less prevalent than errors on /θ, ð/ in both pre- and post-test. This concurs with previous research [2, 12]. Substitution errors (/θ, ð/) may be more problematic than errors of deletion or epenthesis (/h/).

Comparing the test group to the control group, both improved, except on /ð/ substitution. For /h/ deletion and /θ/ substitution, the control group made more errors in pre-test, so they had more room for improvement. Regarding /θ/, both groups had equivalent error rates in post-test. For /ð/, there was no improvement for the control group, and the test group had more errors in post-test. One possible explanation is that the voiced interdental fricative /ð/ may be more problematic than /θ/ because it is less perceptually salient [3]. (Note that this is also reflected in the relatively low rate of interrater agreement of /ð/ substitution in Table 1.) In addition, the instructor for these courses told students not to focus on their pronunciation of /ð/ in the function word "the" as such attention usually leads to stressing the article and thus disrupting rhythm. This may have led students to ignore /ð/ altogether. So then why did the control group not have increased errors in post-test as well? It may be that the test group received conflicting information: on the one hand, the teacher told them not to focus on /ð/ in some contexts, and on the other hand, the self-assessment activities directed their attention to /ð/. This speaks to the importance of incorporating clear directives and providing adequate feedback in self-assessment exercises.

Do these results mean that self-assessment is not helpful, or even detrimental, to the development of consonant pronunciation? That conclusion may be premature. Firstly, given the small sample size of the current study, further research is needed to confirm these findings. Secondly, the pronunciation of /θ, ð/ for these advanced learners has perhaps fossilized, especially in the frequent words presented in the experimental stimuli. Fossilized pronunciation likely requires extensive effort and restructuring of the learner's phonological system; therefore, improvement may not be immediately apparent after one semester. Future research should include a delayed post-test to investigate this possibility.

Students' comments from the interviews also shed light on the impact of self-assessment. Several participants remarked that they paid more attention to suprasegmentals than to segmentals. Perhaps learners are unable to attend to both aspects simultaneously due to limited attentional resources. Nonetheless, the self-assessment activities were deemed beneficial. Furthermore, students mentioned that these activities increased their awareness and confidence and fostered independent learning since they felt able to extend self-monitoring to their use of English in their everyday lives.

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APPENDIX A - Example of a self-assessment activity

Step 1: Record the following text, speaking as naturally as possible.

Excerpt from *A House in the Sky [8]*
These were high, airy places with big windows and a cool breeze moving through. I imagined one room opening brightly onto another room until I'd built a house, a place with hallways and more staircases. I built many houses, one after another, and those gave rise to a city [...]. I put myself there, and that's where I lived, in the wide-open sky of my mind. I made friends and read books and went running on a footpath in a jewel-green park along the harbour. I ate pancakes drizzled in syrup and took baths and watched sunlight pour through trees.

Step 2: Now listen to the model.

Step 3: After comparing your recording with the model, evaluate your pronunciation.

- How was your pronunciation of the vowels and consonants? "th" and "h"? How was your pronunciation of weak forms and rhythm? Word stress and intonation?
- Give specific examples of what you did correctly and where you made errors.