Doing pronunciation online: creating a self-study English pronunciation course

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Abstract

This paper describes a pilot study for a project being carried out at Grenoble Alpes University which seeks to assess the efficacy of online learning paths in several languages. The learning path presented here targets pronunciation and listening skills in English, and can be used by specialist English students and non-specialists alike. It contains material for one academic year, but may be realised over a shorter time, either as a free-standing course, or as a complement to a physical class. It integrates short subtitled videos and interactive activities, and is based on an articulatory approach to learning pronunciation, centring on prosody, and combining cognitive and imitative methodologies. Using a mixed methods approach, we collect a variety of data to enable us to measure the learning arc of the students enrolled on the course. In this article, we explore some of the problems of learning English pronunciation, before presenting our pedagogical approach and finally the technological solutions we propose. The study is ongoing, and the data presented here is from the first year of this project, which constitutes the pilot study, and concerns the first cohort to use the learning paths.

Keywords: Distance learning, pronunciation; prosody, video.

1. Introduction

The study of a foreign language, usually English, is compulsory for all university students in France, as in many other countries in Europe and throughout the world. These LSP/LAP (Languages for Specific Purposes/Languages for Academic Purposes) learners, are supposed to have B2 level English according to the CEFRL on arrival at university, and specialists are supposed to be B2 – C1 [1]. However, most students arrive after eight to ten years of secondary schooling with a level that is closer to A2 [2], and teaching conditions and learner motivation vary greatly [3] & [4]. English specialists receive some training in phonetics and phonology, but teaching pronunciation in many contexts in France is often neglected [5]. In the context of French universities, some teachers and researchers do focus on pronunciation in classes, and some even put intelligibility at the centre of their teaching [6], but it is far from the norm.

For learners whose native language is a romance language such as French or Spanish, the prosody of English, with its different levels of stress, reduced syllables, numerous deletions, and complex rhythmic patterns, can cause many difficulties [7], both to intelligibility and to comprehension.

Even before the Covid-19 pandemic and the rush towards distance learning which it provoked, French universities have been turning more and more to online learning platforms as a way of supplementing, and sometimes replacing, classroom learning [8]. The resources and the study presented in this paper are an attempt to respond to the many problems which learners of English in French universities encounter: more specifically, how to move teaching and learning pronunciation online. The first part of the paper will outline some of the challenges we faced, and the second part will describe some of the solutions we are bringing to bear, and how this pilot study is helping us to assess the merits or otherwise of our approach.

2. Background

2.1. Context

The context for this study is a public university in France, and the resources developed and which this project is using are intended for different sets of learners: applied foreign language students (Langues étrangères appliquées/LEA); language students (Langues littératures civilisations étrangères et régionales/LLCER); lifelong learning students, either teachers or researchers from the university, or who are enrolled on short English for Specific Purposes (ESP/EAP) courses; non-specialist students: either ESP/EAP or general language courses.

For the purposes of the pilot study presented in this article, the participants are all first-year students in applied foreign languages (LEA), and we will discuss these students in the second part of this article.
Lifelong learning students vary enormously, both in terms of their level, but also their needs. As for the last category, this is the most varied group, and potentially the largest.

2.2. Phonological transfer

Although their shared history means that up to two-thirds of the vocabulary in French and English have common ancestry in Latin, the phonologies of the two languages are very different [7]. When speaking, some transfer of phonological features from French to English is inevitable, and all students will have a “French accent” to some degree. When listening, this phonological transfer may provoke some degree of “phonological deafness” [9], especially regarding prosodic features, indeed some learners of English may even experience “stress deafness” [10].

2.3. What model(s) are taught in France

For over twenty years now, the number of exchanges in English between non-native speakers (NNS) has outnumbered the number of exchanges between native speakers (NS) [11], and for this reason, many teachers choose to provide a variety of Englishes from around the world as models, both NS and NNS [12]. However, in the French context, only two models are taught to future English teachers in universities, and only two models are accepted in the context of the phonology part of the Agrégation externe, the competitive exams which are still considered the gold standard for teachers in both the secondary and universities in France, and those varieties are General American (GA) and Standard British English (SBE) [13]. Despite the many differences between the varieties of English, they all include the weak/strong syllable alternation [8] and this in particular leads to many problems for French learners. This is why stress, and the other prosodic and segmental features that are linked to stress, are at the heart of our approach.

2.4. Our approach to teaching pronunciation: a cognitive and embodied approach

Some of our learners are English specialists aiming for a near-native accent, as credibility judgements often depend on accent [14]. However, for many of our non-specialist students, and even for the specialists in their first year, we focus on intelligibility and comprehensibility. So, for what we may term “high stakes learners”, their aim is generally accent modification, but for most learners, the more realistic goal of accent addition is sufficient. In both cases, most authors recommend working on both production and comprehension in tandem [15], and this is what we encourage our learners to do.

In any teaching situation, especially in a short course (and the learning path discussed here is 24 units, representing 12-24 hours of work), we must choose what to prioritise. We have seen above that the prosody of English and French are very different, but there is also a large body of work which shows that prosody not only has a high impact on perception of accentedness [16], but also on intelligibility [17]). In our approach, we choose to foreground prosody [18], in particular stress, and features which result from stress, such as reduced vowels, and connected speech phenomena, such as deletions, liaisons, assimilations, etc. because they have a high impact on intelligibility. Indeed, Levis and Muller Levis [19] refer to lexical stress as one of the “high value pronunciation features”, i.e., those which have a large impact on “other listeners’ ability to understand”. There is also an increasing amount of encouraging work on the learnability of prosodic features in many contexts [20], including with French learners [21]. Our approach is cognitive, in that we raise awareness to essential prosodic features, and encourage learners to think actively about these features while doing the activities.

Finally, as speech is not only a cognitive process, but also a motor skill, we believe that it is essential to work on the body as well as developing cognitive and metacognitive strategies. Our approach places great importance on embodied learning. As Chan [22] states, “careful attention to breathing, vocalization, articulatory positions, pulmonic and tactile pressures, pitch and duration, scope and synchrony of body movements, in addition to the systematic use of gestures, enables more effective pronunciation.” We therefore encourage learners to become aware of their articulators with a variety of physical activities, to be aware of the physical differences between French and English, and to “warm up” before undertaking pronunciation activities, as we would in a physical classroom.

2.5. Using digital technology: teaching pronunciation online

Digital technology, especially using e-learning platforms, opens up some very interesting possibilities for learning pronunciation, as long as careful consideration is given to the solutions chosen [23]. Many students, especially in France, are reluctant to speak in classroom settings [24]. Working in the privacy of one’s own home can be a solution to these and other problems which learners may face in the classroom.
Technical and practical considerations aside, the real challenge is how to recreate a classroom learning experience using online tools: teaching pronunciation inevitably involves some imitation. Our approach, which, as we have seen above, is both cognitive and physical, provides a particular set of challenges when designing online self-study programmes. Starting a pronunciation session with relaxation techniques, breathing, work on raising learner awareness to articulatory settings, etc. is much easier in person than in a self-study distance-learning context. For this reason, we chose to base our approach on the extensive use of videos, which enables us more easily to demonstrate these techniques, as well as providing informational content, encouraging the development of strategies, etc. The three main pillars of our online approach are therefore:

1. Short video capsules\(^1\) (mostly 4 or 5 minutes), many of which demand some activity on the part of the learners, including standing up, warming up, repeating words and phrases, etc.
2. Activities to discover and/or reinforce skills (drag and drop, multiple choice, etc.)
3. Listen, repeat and record activities to encourage the development strategies such as critical listening, noticing, monitoring, etc.

3. The present study

3.1. Background: The HELD & HELD+ projects

This research project follows on from the funded teaching project “HELD” (Hybridation des Enseignements en Langues Débutées\(^2\)). The original project had a budget of 200,000 euros to pay teachers and technicians to develop online learning paths for students at Grenoble Alpes University who needed a little extra help as they were starting a new language, such as Russian or Japanese. In addition, as those students were unable to follow English classes, it was decided to develop learning paths in English too, both for undergraduates and lifelong learning students.

The learning platform chosen was Moodle, and a recording studio was made available, along with audio-visual technicians to help record, edit and subtitle the videos, and an engineer to help design the online learning paths. The current article concerns only the English pronunciation path, which is composed of 24 units, which correspond to two 12-week semesters, but may be realised at any time, each unit taking 30–60 minutes to complete. HELD+ is therefore a follow-on project, whereby those members of the initial teaching project who wish to carry out research based on their learners’ completion of the learning paths can do so.

The content for learning paths for the HELD project were developed and finished during the COVID-19 lockdown period, and therefore the roll-out was delayed. For this reason, we chose to pilot the learning paths during the second semester of the academic year 2020-2021. The complete project so far includes the following learning paths: English (3 paths, A2-B2: pronunciation, grammar, vocabulary); German (A1-A2); Russian (A1-A2); Chinese (A1-A2); Japanese (A1-A2). The Japanese learning path is not part of the HELD+ project, and learning paths in Italian and Spanish are currently under development.

As we have seen, the most frequent model taught in France is RP, along with American English, so the videos for the English courses are recorded in RP/SBE, but GA is covered where there are important differences between RP/SBE and GA. The last unit covers these two varieties more fully and the very last activity exposes the learners to other varieties of English.

3.2. Methodology

3.2.1. Participants:

As we saw in part 2.1, several groups of learners use the learning paths, however the pilot study presented here concerns only first year applied foreign language students (Langues étrangères appliquées / LEA). There are over 600 students in the first year, and they all had access to the HELD+ pronunciation learning path.

3.2.2. Data collection

The data collection methods vary according to the learning path and/or the language concerned, but the principal is the same, i.e., a pre-test & a post-test, a questionnaire before and after the learning path and semi-structured interviews with selected participants. Participation in the research project is voluntary, but completion of the actual learning paths is either voluntary or compulsory, depending on the context. The participants were given access to the pronunciation learning path in January 2021, at the beginning of the second semester. The pre-test, post-test, initial and final questionnaires for the pronunciation path can be found in the appendices.

3.3. Preliminary data: results and discussion

Of the 600 first year LEA students enrolled in the first year, 206 chose to participate in the study by signing up for the learning path. Of these, 55 participants completed the first questionnaire and 44 took the pre-test. The participants accessed the path thousands of
times in the first month, but their participation rapidly waned. The majority of the “hits” were participants watching the first few videos and completing the first few activities. The extremely high attrition rate is undoubtedly due to the fact that completion of the learning path was voluntary, compounded perhaps by distance learning fatigue after a year of lockdown due to Covid-19, with screens replacing face-to-face learning.

The initial questionnaire revealed several interesting pieces of data about the 1st year LEA students (see fig. 1), for example Q5, where they self-reported their CEFR level. Perhaps the most surprising fact is that over a third of them didn’t know their CEFR level in English! Of those that did, half reported having B1 / B2 level. This is a full level above the results found in previous studies [3][4][25]. The results for Q9 show that over half the students believe their French accent in English to be strong or very strong; given the responses to Q11, i.e., that 95% of them have had little or no training in phonetics or pronunciation, this is hardly surprising. However, as we can see in the answers to Q10, they are very positive about their comprehension of authentic spoken English – which we may speculate has more to do with Netflix than the teaching they receive in secondary schools – indeed 63% of the participants admit to watching films or series every day or almost every day.

The results to the pre-test (see fig. 2) show above all that the participants have three areas in particular where they are weak, namely nuclear stress placement (Q3), knowledge of schwa (Q4), and knowledge of linking vowel-final and vowel-initial words with /r/, /w/, and /j/ (Q5). These results correspond to data we collected when calibrating a prosody assessment tool, where we discovered that these were among the features which French learners of English struggled with until C1 level [26].

Figure 1: Questionnaire 1 - selected results (Q5, Q9, Q10, Q11).
Questionnaire 2 is intended mainly to provide feedback on the perceived difficulty, usefulness of the resources, and to provide the participants with the opportunity to give their opinions and tell us about any technical problems. As only one participant completed this questionnaire, the results are not reported here.

4. Conclusions

Despite (and thanks to) the high attrition rate, this pilot study was able to provide us with some very valuable data. Firstly, we were able to correct several errors in the learning path which we had not detected earlier. Most importantly, the contents of the learning path seem to be aimed at the right level (A2–B2) and the contents seem to address problems which the participants themselves identify as needing attention. And more pragmatically, we have decided that we will encourage participation over the remaining three years of the project with a reward system, with extra credits given to students who complete the whole learning path. We hope in this way to gain more insight into the feasibility and usefulness of our cognitive and embodied approach to learning pronunciation online.

5. Acknowledgements

Thanks to Marie Delacroix, who was responsible for obtaining the grant for the HELD project, to Robin Pruchon for recording, editing and subtitling the videos, to Chara Kornilaki for making the learning path what it is, and to all the other teachers and researchers on the HELD and HELD+ teams who have worked so hard to give our students all the tools they need to learn in their own homes and at their own pace.

6. References

7. Appendices

7.1. Questionnaire 1

1. You are currently studying for: a. An English degree; b. An Applied Foreign Languages degree; c. Another undergraduate program (Licence); d. Another course of study at the graduate level (Master); e. Another postgraduate degree (Thesis); f. Continuing education (teacher, teacher-researcher, administration, etc.); g. Other

2. Your gender: a. M; b. F; c. Other; I prefer not to declare

3. Your age: a. 18 years or younger; b. 19-25 years old; c. 26-30 years old; d. 31-40 years old; e. 41-50 years old; f. Over 50 years old

4. Your native language is: a. French; b. Another Latin language (Spanish, Italian, etc.); c. Another European language (German, Romanian, etc.); d. An Asian language (Chinese, Japanese, etc.)

5. Your level of English according to the CEFR (if you know it): a. A1; b. A2; c. B1; d. B2; e. C1; f. C2; g. I don't know

6. The total time you spent in an English-speaking country: a. Never; b. One week or less; c. Between one week and one month; d. Between one month and 6 months; e. Between six months and one year; f. More than one year

7. You watch series and/or movies in English: a. Never; b. Once or twice a year; c. Several times a year; d. Several times a month; e. Several times a week; f. Every day or almost every day

8. You speak/listen to English in your professional and/or personal life: a. Never; b. Once or twice a year; c. Several times a year; d. Several times a month; e. Several times a week; f. Every day or almost every day

9. Your French accent (or other, depending on your nationality) when you speak English is: a. Very strong; b. Strong; c. Quite strong; d. Not very strong; e. Hardly detectable; f. I speak English like a native speaker

10. You understand spoken English (at a "real" speed by English speakers): a. Not at all; b. A little; c. Quite well; d. Well; e. Very well; f. Perfectly

11. Have you ever had classes on English pronunciation/phonetics (at school or elsewhere): a. Never; b. Almost never; c. From time to time; d. Quite often; e. Regularly; f. Very often

12. If you have something to add, please write it here:

7.2. Pre-test

1) English is a: a) Stress-timed language; b) Syllable-timed language; c) I don't know

2) In English: a) All syllables are stressed; b) Every word has a stressed syllable; c) No syllables are stressed; d) The last syllable of words is usually stressed; e) I don't know

3) Nuclear stress usually falls on: a) The verb; b) The noun; c) The first word in a tone unit; d) The last content word in a tone unit; e) I don't know

4) "Schwa" is: a) A syllable; b) A stressed vowel; c) An unstressed vowel; d) A consonant; e) A rule; f) I don't know

5) The following consonants are useful for linking words ending in vowels: a) /f/ /l/ & /h/; b) /w/ /l/ & /j/; c) /s/ & /z/; d) /h/; e) I don't know

6-10) Word stress patterns. Please select the stressed syllable in the following words (the one marked in capital letters):

   a) Volcano: VOLcano; volcano; volcano; I don't know
   b) University: University; uNIversity; university; university; I don't know
   c) Photograph: PHOtograph; photoTOgraph; photograph; I don't know
   d) Photography: PHOtography; photography; photography; I don't know
   e) Photographic: PHOtographic; photographic; photographic; I don't know

7.3. Pre-test part 2: Reading & recording text

““The first question which you will ask, and which I must try to answer, is this: ‘What is the use of climbing Mount Everest?’ and my answer must at once be, ‘It is no use’. There is not the slightest prospect of any gain whatsoever. Oh, we may learn a little about the behaviour of the human body at high altitudes, and possibly medical men may turn our observation to some account for the purposes of aviation. But otherwise nothing will come of it. We shall not bring back a single bit of gold or silver, not a gem, nor any coal or iron. We shall not find a single foot of earth that can be planted with crops to raise food. So, it is no use. If you cannot understand that there is something in man which responds to the challenge of this mountain and goes out to meet it, that the struggle is the struggle of life itself upward and forever upward, then you won’t see why we go. What we get from this adventure is just sheer joy. And joy, after all, is the end of life. We don’t live to eat and make money. We eat and make money to be able to live. That is what life means and what life is for.”

(George Mallory, Climbing Everest: The Complete Writings of George Mallory)

7.4. Questionnaire 2

1. You found the ergonomics of the course: a) Very bad; b) Bad; c) Quite bad; d) Not bad; e) Good; f) Very good

2. You found the videos:
3. You found the activities:
   a) Too easy; b) Easy; c) Quite easy; d) Quite difficult; e) Difficult; f) Very difficult
5. You found the activities:
   a) Completely useless; b) Not very useful; c) Somewhat useful; d) Useful; e) Very useful; f) Indispensable
8. If yes, these were (you may check more than one box):
   a) Lectures or classes as part of a Bachelor’s and/or Master’s degree in English; b) Lectures or classes as part of a Bachelor’s and/or Master’s degree in Applied Foreign Languages; c) Language service courses; d) Lifelong learning classes; e) Reading, videos, online activities (website, Youtube, Duolinguo, etc.); f) Other
9. If you have any other comments, please write them here:

7.5. Post-test

Identical to the pre-test - questions & recording.

1 All 30 videos can be watched here: https://www.youtube.com/channel/UCJCHx0de-TsBfit783Db_cw

2 “Blended learning for new language learners”