

Are francophone learners of English as a Foreign Language provided with the necessary tools to ensure viable pronunciation?

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Faculté de Philosophie et Lettres

Département de Langues Modernes :

Linguistique, littérature et traduction

**Are francophone learners of English as a Foreign Language
provided with the necessary tools to ensure viable pronunciation?**

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Mémoire présenté par Tom PETERS en vue
de l'obtention du grade de Master en
langues et lettres modernes, orientation
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List of Abbreviations

| | |
|-----------------|--|
| ASR | Automatic Speech Recognition |
| CAPT | Computer Assisted Pronunciation Teaching |
| EFL | English as a Foreign Language |
| EIL | English as an International Language |
| ELF | English as a Lingua Franca |
| ESL | English as a Second Language |
| GA | General American |
| H ₁₃ | Hypothesis number thirteen |
| HVPT | High Variability Phonetic Training |
| IPA | International Phonetic Alphabet |
| L1 | First Language |
| L2 | Second Language |
| LFC | Lingua Franca Core |
| MCQ | Multiple-Choice Question |
| NNS | Non-Native Speaker |
| NS | Native Speaker |
| PCA | Phonetic Coding Ability |
| Q ₁ | Research question number one |
| Q1 | Question number one |
| RP | Received Pronunciation |
| SGAV | Structuro Global Audio Visual |
| VTM | Verbo-Tonal Method |

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1. Introduction: Motivation, Aims, Research Questions, Approach

My father works at an international company as a technical service manager. He works with people from India, Turkey, Germany, or from the United States, meaning that they need a common language to communicate: English. During the 2020 lockdown, he had to work from home and he decided to settle his office next to my bedroom, so many times a day, I heard him talk over the phone to some of his colleagues. Because I am studying English teaching methodology, I marvelled at my father's and his colleagues' strong foreign accents. I do not believe my father has ever received any pronunciation instruction, and yet, there he was, efficiently communicating with others, who, like him, were accented. The question then arose: Is pronunciation that important in language learning?

This is what sparked my interest in pronunciation and this dissertation ensued. Mixed with my interest in teaching, the research question became: Are francophone learners of English as a Foreign Language provided with the necessary tools to ensure viable pronunciation?

Many other questions derive from that central research question. Because I decided to conduct a survey, I can answer similar questions in both a practical (thanks to the questionnaire) and a theoretical way (thanks to the literature review). A comparison between what is advised by research and what is said to be done in class is then possible. The following table presents the 23 research questions (Q₁) stemming from the central one; a double arrow indicates correspondence between a question discussed in theory and in practice.

Table 1

Research Questions

| Research Questions Discussed Theoretically | | Research Questions Discussed Practically | |
|--|--|--|--|
| Q ₁ | What goals should teachers pursue in pronunciation teaching? | ⇔ | Q ₁₃ What goals do teachers pursue in pronunciation teaching? |
| Q ₂ | What are effective techniques to teach pronunciation? | ⇔ | Q ₁₄ What techniques do teacher use to teach pronunciation? |
| Q ₃ | Are textbooks suitable ways to teach pronunciation? | ⇔ | Q ₁₅ Do teachers use textbooks to teach pronunciation? |
| Q ₄ | How does feedback impact pronunciation teaching? | ⇔ | Q ₁₆ How do teachers use feedback regarding pronunciation? |
| Q ₅ | Is the use of a metalanguage effective to teach pronunciation? | ⇔ | Q ₁₇ Do teachers use any kind of metalanguage to teach pronunciation? |
| Q ₆ | Do non-native accents have a place in class? | ⇔ | Q ₁₈ Do teachers call upon non-native accents in class? |

| Research Questions Discussed Theoretically | | Research Questions Discussed Practically | |
|--|---|--|---|
| Q ₇ | What is good pronunciation? | ⇔ Q ₁₉ | What norms do teachers refer to when teaching/evaluating pronunciation? |
| Q ₈ | What are the features involved in pronunciation? | Q ₂₀ | What features do teachers teach/focus on regarding pronunciation? |
| Q ₉ | How do these features impact pronunciation? | Q ₂₁ | Why do teachers (not) teach pronunciation (much)? |
| Q ₁₀ | Do teaching contexts impact pronunciation goals? | Q ₂₂ | What kind of training in (teaching) pronunciation did/do teachers get? |
| Q ₁₁ | What is the pronunciation teaching situation in some countries? | Q ₂₃ | How is pronunciation integrated into the classroom? |
| Q ₁₂ | How does teacher input influence the pupils' pronunciation? | | |

The research questions in the left column will be answered in the chapters 2 through 5, while the questions in the right column will be answered in Chapter 6. The reason why some theoretical questions do not get a practical is because their answers will serve to posit hypotheses and practical questions. Said differently, the impact of features involved in pronunciation (Q₈), the contexts (Q₁₀), and the effects of teacher input (Q₁₂) will allow to posit some hypotheses when it comes to understanding why teachers do or do not teach pronunciation (Q₂₁), or what features they rather focus on (Q₂₀). An overview of the pronunciation teaching situation in some countries (Q₁₁) will allow to hypothesise answers to every question in the right column of Table 1. The countries that will be analysed are the ones surveyed in various articles from scientific literature and these include: Finland, France, Germany, Poland, Spain, Switzerland, New Zealand, the United States, Australia, Canada and Uruguay (see Chapter 5).

At the beginning of every chapter, the questions that are dealt with are stated; hypotheses are given only for Q₁₃ to Q₂₃ included (i.e., the ones from Chapter 6) because the other research questions require formal knowledge. Chapter 2 deals with Q₇, Q₈, Q₉. Chapter 3 provides an answer to Q₁, Q₆, Q₁₀, Q₁₂. Chapter 4 copes with Q₂, Q₄, Q₅. Chapter 5 sheds light on Q₃, Q₁₁.

The approach taken in this dissertation is the following. Literature is reviewed in the next four chapters to better comprehend pronunciation as a whole. Chapter 2 gives a definition of pronunciation, advances three concepts to understand what good pronunciation may mean and focuses on pronunciation features. Chapter 3 zooms in on teaching contents and contexts: the goals and norms, the impact of the context, the importance of pronunciation features and the moments to teach pronunciation are reviewed. Chapter 4 dives into the different techniques

available to put into practice what is detailed in the two previous chapters: an array of pronunciation methods and exercises are presented. Chapter 5 looks at teachers' actual practices through examining surveys, questionnaires, and interviews conducted with them, through observing what instructors actually do in class, through asking learners what they think of pronunciation, and through discussing the place of pronunciation in textbooks. Chapter 6 discusses the results obtained after sending the questionnaires to English teachers working in Belgium. Chapter 7 concludes this dissertation by comparing the two types of research questions.

Some extra information relating to the dissertation overall must be provided before diving into the different research questions. Throughout every chapter, and throughout the introduction, the American Psychological Association guidelines (seventh edition) are followed and applied. Whenever a phonetic transcription is given for a word, or whenever a word is given to illustrate a sound, the *Cambridge English pronouncing dictionary* (Jones, 2011a) is used. As recommended by supervisor Mr Simons and for the sake of easiness, the appendices are provided to the supervisors and to the readers on USB sticks, in both Word and PDF format.

2. Pronunciation: Viability, Segments and Suprasegmentals

2.1. Introduction

This chapter looks into what pronunciation is, what it entails and into three concepts that make the notion of good or viable pronunciation clearer; these are comprehensibility, intelligibility and accentedness. Each theme is discussed in one separate subsection. The research questions dealt with are: “What is good pronunciation (Q₇)?”, “What are the features involved in pronunciation (Q₈)?”, “How do these features impact pronunciation (Q₉)?”

2.2. Pronunciation

The very first element that must be defined to speak of pronunciation, is pronunciation itself. Yet, very few authors seem to explicitly define it, so an adequate starting point could be a dictionary; *pronunciation* is defined as “the way in which a word is pronounced” (‘Pronunciation’, 2012, p. 576) and *to pronounce* is defined as “to make the sound of a word or part of a word” (‘Pronounce’, 2012, p. 576). Here, the focus lies on the production of sounds and very much resembles what authors call *pronouncing*, that is, the physical elements, or the “motor skill component of pronunciation” (Messum & Young, 2021, p. 169): the placing of the tongue, the position of the lips, the vibrations of the vocal folds, etc. Still, there is more to it than production. Researchers (Setter & Jenkins, 2005, p. 1) emphasise the perception involved in pronunciation: one perceives sounds (i.e., segmentals, see 2.4.1.) that are produced and that are combined with larger speech features (i.e., suprasegmentals, see 2.4.2.).

Additionally, Pennington (1988) defines pronunciation as:

Conveying many different types of messages to a hearer related to the information structure of a discourse, the speaker’s attitude and mood, and other social and psychological features of the speaker or of the relationship between the speaker and the hearer. (p. 204)

She puts emphasis on a speaker (i.e., production), a hearer (i.e., perception) and on the relationship between the two; pronunciation then possesses a social component. A speaker may adapt the way they pronounce a word to better fit the communication situation or needs, such as register needs (e.g., formal or informal language) (Pennington, 2019, pp. 373–375).

Detey et al. (2016, p. 19) provide a comprehensive definition: pronunciation entails acquiring a phonological and phonetic system (and its social representations), at different levels, that is, production/perception and segmentals/suprasegmentals. Phonology deals with the sound system, aims at finding patterns and structures (Crystal, 2008, pp. 365–366; van Oostendorp, 2020, pp. 3–6), while phonetics studies the “physical” (van Oostendorp, 2020, p. 3), “articulatory”, “acoustic” features of sounds (Crystal, 2008, pp. 364–365). What is at stake with pronunciation is then much more than mere sounds (Detey et al., 2016, p. 19).

2.3. Comprehensibility, Intelligibility and Accentedness

2.3.1. Comprehensibility

Comprehensibility is how easy or difficult it is for someone to understand a specific piece of speech (Derwing et al., 1998, p. 396; Derwing & Munro, 2009, p. 478; Derwing & Munro, 2014, p. 40; Galante & Piccardo, 2022, p. 376; Gordon & Darcy, 2016, p. 57; Munro & Derwing, 2001, p. 454; Yenkimaleki & van Heuven, 2021, p. 9). Thus, comprehensibility bears no relation to what one understands but it is related to how much “effort” (Derwing, 2010, p. 29), to “the amount of time” (Derwing & Munro, 2009, p. 478), or to “the amount of work it takes listeners to process speech” (Levis et al., 2016, p. 7), hence, some using “processability” as a synonym for comprehensibility (Thomson, 2018, p. 225). Therefore comprehensibility is a totally subjective judgment of speech (Derwing et al., 1998, p. 396) and is measured through the use of scales assessing difficulty of speech processing (Derwing et al., 1998, p. 396; Levis et al., 2016, p. 7). Because repeated exposure to particular speech entails less effort required for processability (Gass & Varonis, 1984, p. 77), teachers may not be best suited for judgment on their pupils’ comprehensibility (Munro & Derwing, 2006, p. 521). Repeated exposure to familiar errors may eventually lead to new norms in the classroom (Intravaia, 2000, p. 238).

2.3.2. Intelligibility

Intelligibility refers to the extent of actual understanding or to how much of an utterance was understood (Derwing et al., 1998, p. 396; Derwing & Munro, 2009, p. 479; Gordon & Darcy, 2016, p. 57; Gut, 2009, p. 254; Munro & Derwing, 1999, p. 289, 2001, p. 454), recognized (Field, 2005, p. 401; Yenkimaleki & van Heuven, 2021, p. 2) or decoded (Levis, 2007, p. 188; Levis et al., 2016, p. 6). Then, similarly to comprehensibility, central to the concept is both the listener and the speaker (Levis, 2005, p. 372; Pennington, 2021, p. 18); intelligibility is often implied with regard to native speakers (NSs), but it may be needed to extend it to other listeners, like non-native speakers (NNSs) and “automated speech recognition assistant-based personal

assistants such as Apple's Siri and Google's Alexa" (Rogerson-Revell, 2021, p. 201). With intelligibility, the focus lies on the listener and their perception (Field, 2005, p. 400). It is measured through the use of transcriptions which are then compared with the actual utterances pronounced; depending on the number of missing or misrecognised words, an intelligibility score may be assigned (Munro & Derwing, 1999, p. 289). On the basis of all these elements, intelligibility can then be argued to be the most crucial of the three concepts surrounding pronunciation, that is, comprehensibility, intelligibility, and accentedness (Derwing et al., 2013, pp. 23–24).

Several factors may impact actual understanding. One of them is the fact that a native listener applies "speech processing strategies that are appropriate to their native English phonology" (Zielinski, 2008, p. 70) to non-native speech, which was investigated in Rasier et al. (2011, p. 235), who demonstrated that native listeners find non-native speech less intelligible than native speech, while non-natives find it easier to decode non-native speech than native speech; that contrast points to different patterns being applied (see 3.3. for more information on the impact of language backgrounds).

Besides, Gass & Varonis (1984, p. 81) found that, among other elements, being accustomed to non-native speech positively influences intelligibility scores (see 3.3.). They asked two Japanese and two Arabic speakers to read out loud a fable and sentences related or unrelated to the story that 142 NSs of English listened to, who then transcribed the sentences and summarised the story. The factor that had the greatest influence on the transcription scores was the "familiarity with the topic of discourse" (Gass & Varonis, 1984, p. 81), followed by being accustomed to non-native speech and to accents. The last impactful element was familiarity with a specific speaker. Despite the flaw of having four speakers in total, the results shed light on intelligibility and its sources.

2.3.3. *Accentedness*

Accentedness revolves around a difference between speakers' pronunciation (Murphy, 2014, p. 261) and may be defined as "divergences from the norms of [a] speech variety" (Flege, 1984, p. 692), which then entails that every speaker does necessarily have an accent since there exist different (equally good) English norms (Derwing & Munro, 2009, p. 476; Ioup, 2008, p. 54; Saito & Lyster, 2012, p. 597). Many authors do insist on the differential or deviational character of accent (Bent et al., 2007, p. 331; Derwing & Munro, 2009, p. 476; Gut, 2009, p. 253; Levis

et al., 2016, p. 7), one even stating that accent is synonymous with a “style of pronunciation” (Pennington, 2019, p. 377).

Factors influencing accentedness are numerous and range from physical properties to social ones (see below). It is of interest to note that there are some factors that do not influence accentedness like “education levels and intelligence” (Gordon & Darcy, 2016, p. 57).

About the impactful social properties first, an accent is a way to assess one’s belonging to a group or simply to assess one’s identity (Levis, 2005, pp. 374–375), whether it be “regional, social or ethnic” (Setter & Jenkins, 2005, p. 1). As a result, a speaker may adapt their speaking style in order to be approved of (Beebe & Giles, 1984, p. 8) or they may adopt a certain way of pronouncing for its social prestige, like the French accent, among other European ones, which may be seen as a sign of intelligence (Derwing & Munro, 2009, p. 484). It all boils down to projecting a specific wanted image (Setter & Jenkins, 2005, p. 5). Besides, the social aspect of accent goes both ways: due to high social pressures from their first language (L1) group, second language (L2) speakers of English may not desire attaining native pronunciation for they may fear being seen as lacking loyalty to their L1 group (Gatbonton et al., 2005, p. 504).

Furthermore, non-social elements such as “intonation patterns” (Jilka, 2007, p. 91), fluency (Gut, 2009, p. 300), pronunciation speed (Munro & Derwing, 2001, p. 464) do have an impact on accentedness. Gut (2009) lists language-independent factors exerting an influence on accentedness: “age at the beginning of the language learning, length of residence [in an English speaking country] and length of instruction” (p. 271). She also examined accentedness in two groups who had either taken a 6-month pronunciation course or had been abroad for 6 to 9 months and did not notice any significant improvement in either group (Gut, 2009, p. 278). In another study, Gut (2007, p. 165) examined vowel reduction in two groups who had also either followed a pronunciation course or had stayed abroad, but this time, they had both significantly improved.

Other researchers (Munro & Derwing 2001, p. 464) noticed that increasing a NNS’s utterance by 10% had positive effects on accentedness and comprehensibility scores. This may be explained by the fact that the listeners must process speech faster and are therefore less likely to notice errors. Still, speeding up the utterances too much, or speaking too fast, does have the opposite effect.

Additionally, *transfer*, that is, learned languages impacting the subsequent language learning (Edwards & Zampini, 2008, p. 2) is argued to play a role in accentedness. While some

authors state that it does explain accent (Jilka, 2007, p. 83; Mehlhorn, 2007, p. 211; Rasier & Hiligsmann, 2009, p. 3), like transfer of “vowel duration ... voice onset time ... syllable structure production” (Ioup, 2008, p. 43), but remain careful when generalising, others (Bent et al., 2007, p. 331) consider transfer as the major cause of accents. Not only does transfer play a role in production, but in perception as well, especially in intonational meaning (e.g., surprise) (Chen, 2009, pp. 404–406) (see 2.4.2.).

When compared to both intelligibility and comprehensibility, accentedness is probably the most noticeable of the three (Derwing et al., 2002, p. 246; Derwing & Munro, 2009, p. 476). Flege’s experiment (1984) is quite telling with regard to the saliency of accentedness. He tested French accent detection in samples of varying length, ranging from full phrases, isolated syllables, parts of syllables, to the very start of the word “two”, that is, the “first 30 ms [...] or the release-burst of /t/” (Flege, 1984, p. 692); the listeners were successful in their identification no matter the length of the sample heard or their familiarity with the accent they were presented with. Similarly, Munro and Derwing (1999, p. 294) noticed that listeners are quite able to differentiate a non-native from a NS, even when a word is played backwards (Derwing & Munro, 2009, p. 477). *Voice quality* or “the characteristic resonance” (Crystal, 2008, p. 398) is argued to be the reason why listeners can determine nativeness based on backwards speech (Derwing & Munro, 2009, p. 477).

What is more, Munro & Derwing (1999, p. 303) looked at the connections between comprehensibility, intelligibility, and accentedness, and showed that speakers may be completely intelligible and comprehensible despite having strong accents. Unexpectedly, in their study, five utterances produced by non-natives received perfect intelligibility scores, and these were the only ones to get such possible scores. A conclusion is that accent, however strong it may be, does not necessarily negatively impact intelligibility; yet, the opposite situation seems to be always true: when a speaker is deemed unintelligible, their accent will be rated as high (Derwing & Munro, 2009, p. 479).

Moreover, accents are, in their very nature, tied to norms. Stress and rhythm do play a major part in defining English accent norms (Diana, 2010, p. 12). What further differentiates them is specific realisations of sounds or words; American pronunciation (or General American [GA]) is said to be rhotic, meaning /r/ is usually pronounced wherever it is in a word, while British accents (such as BBC Pronunciation) are typically non-rhotic (Jones, 2011b, p. vi). Another feature that is found in American English but not in British English is the “lax vowels [or] British short vowels [produced] with less oral tension” (p. ix).

Regarding names, *BBC English* or *BBC Pronunciation* (i.e., pronunciation features of newsreaders employed at the BBC) will be preferred to Received Pronunciation (or traditionally RP) for it has fallen out of use (Jones, 2011, p. xii); as far as the British standard is concerned, Sangster (2011, p. xxix) emphasises that BBC employees, while they could and still can be advised on how to keep an accurate pronunciation, were never and are not submitted to a clear standard, which explains why several accents can now be heard on the international British Broadcasting Corporation. Similarly to BBC Pronunciation, *GA* refers to how newsreaders from national American channels, who do not carry features of accents typical of New England or the Southern States, speak (Jones, 2011b, p. xii).

2.4. The Core Elements of Pronunciation

When speaking of pronunciation, research distinguishes between two levels: the segmental and suprasegmental level (Couper, 2021, p. 137).

2.4.1. Segmentals

Segmentals (or segments) are defined as the “individual sounds” (Foote et al., 2012, p. 3), the “phonemes” (Field, 2005, p. 402), the “speech sounds” (Hu et al., 2013, p. 366), or as the “isolated consonants and vowels” (Kissling, 2013, p. 722), including their “language specific combinations” (Gordon & Darcy, 2016, p. 58). In other words, segmentals may be called “simple sounds” (Chun, 2002, p. 3). They are said to be made of “features”, which are body movements (van Oostendorp, 2020, pp. 21, 41). Instances of features are “labial” (i.e., relating to the lips), “voiced” (i.e., relating to the vocal folds) and “stop” (i.e., release of air in the larynx after it had been blocked) (pp. 26-31); combined, a labial voiceless plosive is the phoneme /p/ (as in “put”) and the labial voiced stop is /b/ (as in “but”). Other examples of segmentals are /v/ (as in “hot”) or /æ/ (as in “cat”). The correct production of some segments is important to ensure intelligibility: the correct production of vowels and of initial consonants are positively correlated with intelligibility, and any errors at the beginning of a word is more detrimental than an error at the end (Bent et al., 2007, pp. 341–344). Those findings were partly corroborated by Zielinski, (2008, p. 76) (see 2.4.2.).

2.4.2. Suprasegmentals

Suprasegmentals include larger aspects of pronunciation than segments (Foote et al., 2012, p. 3), such as word stress, rhythm, intonation (Field, 2005, p. 402; Gordon & Darcy, 2016, p. 58; Hu et al., 2013, p. 366) and these are often collectively referred to as prosody (Baker, 2011, p.

263; Derwing & Munro, 2014, p. 40; Field, 2005, p. 402). While segmentals are phonemic units, suprasegmentals are “phonological units” and have scope over more than one vowel or consonant sound (Chun, 2002, p. 3). Central to suprasegmentals or prosody are the physical and pragmatic properties (Busà, 2007, pp. 167-169; Cauldwell, 2011, p. xxi; Chun, 2002, pp. xiv–xv): prosody does indeed distinguish questions from statements and allows speakers to convey emotions or politeness.

Gussenhoven (2002) differentiates between different suprasegmental-related codes which are interpreted on an affective (i.e., speaker’s characteristics) and informational (i.e., characteristics of the message) level: the *frequency code* (i.e., a low or high pitch¹ due to properties of the speech-productive organs such as the size of the larynx), the *effort code* (i.e., the amount of energy needed to produce speech) and the *production code* (i.e., the links between breathing and energy) (p. 1). Affective and informational interpretations of the frequency code are respectively “masculinity, authoritativeness/assertiveness, and protectiveness (low pitch) and femininity, submissiveness/friendliness, and vulnerability (high pitch) ... ‘certainness’, leading to ... the difference between statements and questions” (p. 9). Affective and informational interpretations of the effort code are respectively “surprise and obligingness” and focus (p. 9). The production code only carries informational interpretations, relating to both ends of an utterance: a high pitch at the beginning marks a new theme, while a low pitch marks an old theme, and a high pitch at the end indicates topic continuation, while a low pitch marks the end of a topic or, of a speech turn (p. 5).

Similarly, Chun (2002, pp. 77-78) identifies four functions of intonation: *grammatical* (i.e., telling a question from a statement), *attitudinal* (i.e., expressing feelings), *discourse* (i.e., signalling new information, contrast, illocutionary force of a speech act, finality or signalling the end of a turn), and *sociolinguistic* (i.e., establishing a link with a group). Some examples follow. In English, wh-questions typically end with a falling intonation (p. 209), falling intonation with a large amplitude may express anger (p. 222), “very high or very low pitch” may signal “emphasis” (p. 228), and “British female voices [are] in general relatively high-pitched” (p. 236). Chun (2002, p. 75) assigns intonation a sociolinguistic function: marking someone as having a foreign accent, thus belonging to NNSs (see 2.3.3. and 3.4.).

¹ *Pitch* is defined as the perception of the vibration of the vocal folds; pitch refers to the height of the different sounds and is measured in Hertz (Chun, 2002, p. 5). A more comprehensive definition is given in the coming paragraph.

When attempting to describe the suprasegmental level, a distinction needs to be made between how prosody is expressed that is, frequency, duration, intensity and how they are perceived, that is, pitch for frequency, length for duration, and loudness for intensity (Chun, 2002, p. 4). *Pitch* refers to the perception of a fundamental frequency (F0), which is the vibration rate of the vocal cords; pitch thus represents the varying heights of individual sounds and is measured in Hertz; the role of pitch is to stress syllables (p. 5). *Length* refers to the span of the sounds, or their physical duration, or the amount of time a sound lasts (p. 6). Finally, *loudness* refers to how much energy a speaker puts into producing a sound; thus loudness is the “size of the vibrations of the vocal cords” and is then measured in decibels (p. 6).

Furthermore, suprasegmentals consist of three aspects of pronunciation as mentioned above: stress, rhythm, and intonation.

Stress is a polysemic term and may refer to two phenomena: word (or lexical) and sentence stress (Chun, 2002, p. 9; Frost, 2011, p. 68). Stress relates to the marking of prominence in a syllable in a word (lexical) or of a word in an utterance (sentence) (Cauldwell, 2011, p. xxi) for contrastive or emphatic purposes (Hahn, 2004, p. 202), or, in other words, “to mark the most newsworthy piece of information in an utterance” (Chun, 2002, p. 48). Pitch and loudness come into play when stressing a syllable (p. 6): an increased duration, intensity, and increased volume are typical of stressed syllables (Hahn, 2004, pp. 201–204; van Oostendorp, 2020, pp. 78, 125). Besides, duration is considered by some to be the major correlate of stress (Sluijter & van Heuven, 1996, p. 4); Frost (2011, p. 68) adds the formant structure to the list, but Sluijter & van Heuven (1996, p. 4) state that it has more to do with sentence stress than with lexical stress. Some authors (Rasier et al., 2011, p. 227; Sluijter & van Heuven, 1996) do distinguish between accent (sentence stress) and stress (lexical stress); accent may also be used to refer to both phenomena² (Chun, 2002, p. 7).

On the other hand, *rhythm* refers to a certain pattern, or to “strong beats falling on the stressed syllables of phrases and sentences” (Chun, 2002, p. 8). As opposed to French which is often called a syllable-timed language, English is often defined as a stress-timed language (Frost, 2011, p. 71; Setter & Jenkins, 2005, p. 8), because natives are said to take the same time to go from one stressed syllable to the next, independently of the number of unstressed syllables in between, resulting in phonetic reduction of the unstressed syllables (Chun, 2002, p. 175).

² In this dissertation, “accent” will not be used to refer to either sentence stress or lexical stress; only “stress” will be used instead.

Nevertheless, these categories have been called into question (Chun, 2002, p. 9; Gut et al., 2007, pp. 11-12) for it has yet to be confirmed experimentally (Setter & Jenkins, 2005, p. 8).

Regarding intonation, Chun (2002, pp. 3-4) notices that it is often used synonymously with prosody and suprasegmentals, but she uses the definition given in Crystal (2008): “the distinctive use of patterns of pitch or melody” (p. 252).

Suprasegmentals are argued to play a bigger role in rendering an utterance intelligible and comprehensible than segmentals. Hahn (2004, p. 210) investigated the role of stress and found that wrongly placed stress has a great impact on listeners’ perception. She tested 90 freshman students from a Midwestern university on their information retention; those were split into three groups and assigned an identical text to answer questions on and to listen to. What differentiated the text was the lexical stresses that were either correctly placed, misplaced or totally absent. The results showed that the students who had listened to the correctly stressed version remembered more than the two other groups, showing enhanced communication when stress is correctly placed and implying an impediment on communication when stress is not used appropriately (p. 215). The absence of stress also gave students the impression that the speaker spoke rapidly, as conveyed in their comments (p. 221).

Field (2005, p. 410) got similar results when he asked native and non-native listeners to transcribe disyllabic words where the stress pattern had been either switched or had not been switched, along with the vowel quality having changed; the results for both groups (natives and non-natives) showed that shifting stress negatively impacted intelligibility, whether the vowel quality had been changed or not, but the latter scenario had a lesser impact than the former case.

In addition, Zielinski (2008) focused on cues listeners use when confronted with an unintelligible utterance. The researcher asked three NSs to transcribe 50 utterances recorded during a discussion with three proficient L2 English Asian speakers. She found that the listeners always relied on stresses, and, less consistently on individual sounds. Indeed, the stress patterns were found unchanged in the transcriptions when utterances or words were difficult to understand, while segments were transcribed as is in fewer cases (p. 76). Word initial consonants and vowel sounds in stressed syllables were the listeners’ focus (p. 76). In other words, stressed syllables were the most important cues when decoding the utterances, as they were preserved in many cases even if the patterns were non-standard. However, as mentioned by the author herself (p. 81), the major drawback of this study is the limited number of participants (i.e., three listeners and three speakers).

2.5. Conclusion

Going back to the three research questions structuring this chapter, good pronunciation may first be detailed thanks to three concepts (Derwing et al., 1998; Murphy, 2014): comprehensibility (i.e., easiness to understand), intelligibility (i.e. actual understanding), and accentedness (i.e., pronunciation differences between speakers and their norms) (Q₇, “What is good pronunciation?”). Because pronunciation involves both a speaker and a listener, these characteristics, which all involve at least two people, may form criteria to replace the vague notion of being good, but intelligibility remains the most important criterion to assess one’s pronunciation (Derwing et al., 2013).

Going further, many factors influence comprehensibility (e.g., repeated exposure leading to easier processing) (Gass & Varonis, 1984), intelligibility (e.g. NNSs find NNSs more intelligible than NSs) (Rasier et al., 2011) and accentedness (e.g. conscious decision to sound foreign or native) (Gatbonton et al., 2005; Setter & Jenkins, 2005). Yet, the three factors may not be intercorrelated as some speakers may be perfectly intelligible and comprehensible, in spite of being strongly accented (Munro & Derwing, 1999); on the other hand, speakers who are unintelligible appear to always be considered accented (Derwing & Munro, 2009).

Finally, two levels are traditionally distinguished when speaking of pronunciation (Couper, 2021): the segmental level, which encompasses vowel and consonant sounds, and the suprasegmental level, which encompasses lexical stress, rhythm and intonation (Q₈, “What are the features involved in pronunciation?”); besides intonation carries meaning (Chun, 2002; Gussenhoven, 2002). Both are argued to be critical to intelligibility, but the latter level is considered to play a more critical role (Q₉, “How do these features impact pronunciation goals?”): correct production of vowels and of initial consonants is important (Bent et al., 2007; Zielinski, 2008) and so is the correct placement of stress (Hahn, 2004).

3. Teaching: What and When

3.1. Introduction

The aim of this chapter is to give a review of what goals and norms teachers may pursue, how contexts (e.g., the difference between the L1 and L2) impact these, which level leads to a greater improvement in intelligibility and when to implement pronunciation teaching in the classroom setting. The research questions that are answered here are: “What goals should teachers pursue in pronunciation teaching (Q₁)?”, “Do non-native accents have a place in class (Q₆)?”, “Do teaching contexts impact pronunciation goals (Q₁₀)?”, “How does teacher input influence the pupils’ pronunciation (Q₁₂)?”

The first question one may ask is whether pronunciation deserves any attention in class. Levis (2005, p. 369) does believe pronunciation should be addressed in class in some shape or form, but should not become the main point focused on in class. Yet, many other questions arise when teaching pronunciation: Is pronunciation teaching effective at all? How should pronunciation be taught? What pronunciation goals should the teacher set? What pronunciation features should be taught? Before answering these broad questions, a few outlines are given as to make matters clearer.

First of all, much pronunciation research is actually done in controlled environments, and not in regular classes, as acknowledged by Foote et al. (2016, p. 184), thus rendering any conclusions on the efficiency of any method or simply on the best method to adopt not “straightforward” (Gut et al., 2007, p. 5). Additionally, teachers are the ones who ultimately decide what to teach and how to teach based on their pupils or students (Chun, 2002, p. 200), and embedding teaching material thoroughly in theoretical research is not expected from teaching professionals (Gut et al., 2007, p. 15), especially because mixing teaching and research is a daunting task (Chun, 2002, p. 43). What researchers then advocate is to arm teachers with the necessary research-based expertise to identify the learners’ issues (see 3.2.), and with ways to help the learners improve (Derwing & Munro, 2005, pp. 387, 392).

As a result, many researchers (Chun, 2002, p. 144; Derwing, 2010, p. 26; Derwing & Munro, 2005, p. 387; Derwing & Munro, 2014, pp. 46-52; Jenkins, 2004, p. 109; Levis & Grant, 2003, p. 14; Pennington, 2019, p. 375) put forward several principles that should serve as guidelines on pronunciation teaching. A first principle is to teach both the segmental and suprasegmental level (Jenkins, 2004, p. 109), with a slight focus on the latter (Levis & Grant, 2003, p. 14). On that matter, Chun (2002, p. 144) is in favour of combining both a top-down

and a bottom-up approach: a *top-down approach* centres on communication and intelligibility (LaScotte et al., 2021, p. 145) and their links with sound, therefore focusing on the suprasegmental level (Derwing et al., 1998, p. 397; Pennington, 2019, p. 380), while a *bottom-up approach* centres on isolated or combined segments (Chun, 2002, p. xiv; LaScotte et al., 2021, p. 145; Pennington, 2019, p. 372). The question of the main teaching target is also central to other authors (Derwing, 2010, p. 26; Derwing & Munro, 2005, p. 387; Derwing & Munro, 2014, pp. 46-52; Pennington, 2019, p. 375) for teaching pronunciation should always focus on enhancing communication or speaking (Levis & Grant, 2003, p. 14), that is, making utterances more intelligible and more comprehensible. Eventually, better use of technology and of feedback is also advocated (Derwing, 2010, p. 26; Derwing & Munro, 2014, pp. 46-52).

3.2. Goals and Norms

Historically speaking, pronunciation teaching has always had two trends, which both revolve around the principles of what good pronunciation is considered to be: “the nativeness principle and the intelligibility principle” (Levis, 2005, p. 370). Both principles hold different views on what goals to achieve in pronunciation teaching, namely a native accent, that is traditionally BBC Pronunciation and GA (Diana, 2010, p. 13; Marks, 2011, p. xxvi) and intelligible communication respectively (Levis, 2005, p. 370). Besides, if BBC Pronunciation and GA are conventionally considered as the norms to follow, they and other native norms do remain unclear (Taylor, 2006, p. 52) and are still debated (Low, 2021, p. 26), probably because of the lack of clear-cut rules on English pronunciation (Jones, 2011b, p. xii) and some “controversial” pronunciations³ (p. xiv).

The nativeness principle used to be the dominant paradigm in the first half of the 20th century and is argued to still exert an influence on current teaching practices (Levis, 2005, p. 370), especially in teacher training (Detey et al., 2016, p. 18); a reason may be how noticeable accent is (see 2.3.3.) and teachers’ belief that native accents are “an achievable ideal [while it actually is] an exception” (Levis, 2005, p. 370). Nowadays, authors plead for the intelligibility principle to be issued in class (Couper, 2021, p. 137; Diana, 2010, p. 13; Galante & Piccardo, 2022, p. 385; Mompean & Fouz-González, 2021, p. 161) for nativeness is a mere “ideal”

³ Only “kilometre” (/kɪˈlɒm.i.təʃ/, /kɪˈlɒm.i.tə/, /ˈkɪl.əʊ.miː.təʃ/, /ˈkɪl.əʊ.miː.tə/) (Jones, 2011c) is explicitly described as having a controversial pronunciation because “in the past, /kɪˈlɒm.i.təʃ/ was regarded as inappropriate and American-inspired, but it has now become the dominant pronunciation” (Jones, 2011a, p. 277). Other pronunciations are said to be frowned upon or disapproved of. “Research” with the stress on the first syllable (/ˈriː.sɜːtʃ/) (Jones, 2011e), “liquorice” (/ˈlɪk.ər.ɪʃ/) (Jones, 2011d) are two instances of disapproved pronunciation (Jones, 2011a, pp. 418, 291).

(Bowen, 1972, p. 84), “difficult to acquire ... and probably unnecessary for most learners” (Marks, 2011, p. xxvi), which is a viewpoint shared by others (Galante & Piccardo, 2022, p. 38; Galante & Thomson, 2017, p. 117). Yet, based on corpus studies,⁴ Gut (2009) states that “near-native attainment of L2 phonology is possible and that it is worth trying to attain it” (p. 306).

This shift of paradigm has been taking place over the last decade (Detey et al., 2016, p. 18; Pennington, 2021, p. 4) and moving away from native norms does make sense in the 21st century because the number of people whose L2 is English is much bigger than the number of natives (Jenkins, 2011, p. xxii; Mompean & Fouz-González, 2021, p. 161): out of 1.452 billion English speakers, there are 373 million natives, which equals to a bit less than one fourth of the total number of speakers (Ethnologue, 2022; Lane, 2023).

If they do not explicitly make reference to intelligibility and its principle, many authors do however emphasise putting the focus on the right place (Derwing & Munro, 2009, p. 482). The ultimate goal should always remain the following: identifying and working on the learners’ needs in the speaking situation, particularly the ones that may lead to a breakdown in communication (Bowen, 1972, p. 87; Derwing & Munro, 2014, p. 48; Galante & Thomson, 2017, p. 117; Gordon & Darcy, 2016, p. 58; Kissling, 2013, p. 735; Levis, 1999, p. 373; Levis & Grant, 2003, p. 14; Rasier, 2011, pp. 126-127; Taylor, 2006, p. 53; Thomson, 2012, p. 19). Precisions may be added as to this final objective: it must be “realistic” (Bowen, 1972, p. 87) and must cater to both the production and the perception level (see 4.5.) (Derwing & Munro, 2014, p. 48). Focusing on the learners’ needs (and thus will) also implies that whatever goal model the learners choose, a “patronizing [sic] approach” should be avoided (Taylor, 2006, p. 51) and that teacher may have to emphasise “accent addition [instead of] accent reduction” (Setter & Jenkins, 2005, p. 12). In other words, in the classroom setting, foreign accents should not be considered as “inferior” (see 2.3.3.) (Gatbonton et al., 2005, p. 506).

In order to help teachers select features to work on, a diagnostic test may be an appropriate first step (Couper, 2021, p. 136), or the concept of “functional load” may prove useful to prioritise segmental errors based on how they may affect intelligibility (King, 1967; Brown, 1974, p. 54 as cited in Brown, 1988, p. 594; Catford, 1987, as cited in Derwing &

⁴ The corpus used was the LeaP corpus, which is a spoken language corpus of 73,941 words and more than 12 hours of recording. The speakers are learners of English or of German; there are 176 annotated recordings for L2 English and 183 annotated recordings for L2 German; there are a few native recordings for comparison (Gut, 2009, p. 65).

Munro, 2014, p. 48). The *functional load* is a scale ranking segmental contrasts or pairs (Munro & Derwing, 2006, p. 522) depending on their frequency and on the number of words they differentiate (Brown, 1988, pp. 594-597; King, 1967, p. 831). The higher the functional load, the more words they distinguish; the lower the functional load, the fewer words they distinguish. An example of a high functional load pair is “/n/ and /l/ [as in] no/low, night/light” (Derwing & Munro, 2014, p. 48), and an instance of a low functional load pair is “/u:/ and /u/ [as in] pool/pull, fool/full” (Brown, 1988, p. 600). Brown (1988, p. 604) ranks phoneme pairs on a 10-point scale, the higher the number, the higher the functional load: /e/, /æ/ and /p/, /b/ are at level 10, /ɑ/, /ʌ/ and /θ/, /ð/ are at level 5, and /ɔ/, /ɔɪ/ and /f/, /θ/ are the lowest level, that is the first level; Catford (1987, as cited in Derwing & Munro, 2014, p. 49) uses percentages and makes a distinction between initial and final consonants and vowel sounds. The concept of functional load proved efficient in ranking segmental errors: the high functional load errors in sentences spoken by Cantonese people were more detrimental to comprehensibility and contributed to a higher ranking on accentedness than the low functional load mistakes (Munro & Derwing, 2006, p. 529).

Nevertheless, functional load may not be suitable when a non-native meets a monolingual native: in that context, it has been shown that non-bilingual speakers of English rely more on the sounds than on the context (Jenkins, 2000, p. 70). Put differently, the functional load sets priorities as to the most important sounds when it comes to intelligibility, but it seems that monolingual English speakers rely on every sound, which all, to NNSs, carry high functional loads.

The question of setting a pronunciation goal is undoubtedly linked to the models learners may be exposed to (see 3.3.2 for details on teacher input). Since teaching is gradually moving away from the native speaker norm, appropriate models to listen to or to imitate may include NNSs who are both intelligible and comprehensible. These specific models form “accessible” (Murphy, 2014, p. 259) and “appropriate [targets]” (Kissling, 2013, p. 737), accessible in the sense that few learners will ever attain native-like pronunciation proficiency and may then want to aspire to sound like proficient non-native models, and appropriate in the sense that it is statistically more probable that English learners will interact with non-natives than natives (see above). In addition, solely using native models⁵ in class (e.g., through listening

⁵ Exclusive and constant use of native models may only occur in English as a Second Language settings, where the teacher is native.

comprehensions) implicitly conveys that learners should and will sound like natives (Murphy, 2014, p. 259).

As an example, Murphy (2014) provided 36 pronunciation specialists with a 31-item questionnaire on Javier Bardem's pronunciation, an Oscar-winning Spanish actor (Academy of Motion Picture Arts and Sciences, n.d.; Spiardi, n.d.), during a recorded interview. After analysis of the questionnaires, Murphy (2014, p. 263) concluded that Bardem could serve as a suitable model for he was considered both intelligible and comprehensible, despite some segmental errors and his accent. Murphy (2014) also stresses how rich of a model he may be: Bardem's "paralinguistic, linguistic and rhetorical characteristics" (p. 256) were considered as contributing to his intelligibility and comprehensibility. Bardem's interview could then serve as a way of emphasising the roles played by features other than the linguistic ones. Ultimately, what Murphy (2014, pp. 258, 266) advocates, is avoiding putting too much focus on native models, but instead raising the learners' awareness of non-native models and the positive features they may illustrate, points on which Low (2021, p. 28) and Jenkins (2000, p. 91) agree: exposure to non-traditional varieties of English, including non-native accents, is necessary, especially when the class is monolingual. Marks (2011, p. xxvi) justifies listening to different varieties by saying that pronunciation generally varies and changes from lone words to words in speech (see 4.5.). Derwing (2010) does not make any mention of NNSs but does insist on "[exposing students] to multiple voices from a range of ages and dialects" (p. 28).

3.3. Contexts

3.3.1. Teaching Contexts

Teaching is impacted by the teaching contexts, that is, whether the students or pupils learn English as a second language (ESL), a foreign language (EFL), an international language (EIL) and as a lingua franca (ELF). For instance, it may be argued that in EFL contexts, where communication goals are to communicate with natives, native accents should be taken as the norms to attain (Jenkins, 2002, p. 85; Setter & Jenkins, 2005, p. 12). Also, it makes sense seeing the emphasis put on accuracy in EFL, and in such contexts, awareness should still be raised with regard to variation and its functions (Kramsch, 2002, p. 75).

On the one hand, *ELF* may be defined as English used when two speakers do not have a common mother tongue (Murphy, 2014, p. 259; Setter & Jenkins, 2005, p. 12), or, in other words, as "a means of intercultural communication among speakers who come from different first languages" (Jenkins, 2011, p. xxii). On the other hand, EIL does not particularly focus on

one context (two L2 speakers of English in the case of ELF) to determine a central norm, but “acknowledges different varieties of English and how these are used for both international and intercultural communication” (Low, 2015, pp. 7-11, as cited in Low, 2021, p. 23): several norms are then taken into account because EIL contexts include interaction between non-natives among themselves, but also between a native and a non-native (Low, 2021, p. 29). However, some authors do not seem to agree on the exact difference between EIL and ELF: Jenkins (2004, p. 114, 2011, p. xxii) considers both terms synonyms,⁶ while Low (2021, p. 23) clearly makes a distinction. In either case, what is at the core of both approaches is communication with non-natives.

Studies have shown that several elements are necessary intelligibility conditions in NNS communication and should therefore be the main focus of teaching in EIL and ELF contexts; these elements are commonly known as “The Lingua Franca Core” (LFC) (Jenkins, 2002, p. 96). Overall, “most consonant sounds, vowel quantity, initial and medial consonant clusters and tonic stress”⁷ (Jenkins, 2004, p. 115; see Jenkins, 2002, p. 96 for further details) form the LFC and accuracy in all these levels should ensure mutual intelligibility in EIL or ELF contexts. The findings were based on analyses of the speech of Jenkins’s international students. Outside the core are elements that should not be primarily focused on for they are unlikely to lead to a breakdown in communication; for instance, the consonant sounds /θ/ (as in “nothing”) and /ð/ (as in “mother”) fall outside the core (Jenkins, 2002, p. 96, 2011, p. xxiii). These non-core elements are also said to make up a speaker’s foreign accent (Jenkins, 2002, p. 97). The LFC also means that the functional load principle is not applicable to EIL and ELF contexts (see 3.2.).

If the LFC offers an interesting approach in a context where there are more non-natives than natives, it has downsides such as the logical impossibility to plan with whom a speaker may interact more, meaning NSs or NNSs (Diana, 2010, p. 13) and another disadvantage is the focus the LFC puts on segmentals, while suprasegmentals are argued to be critical in intelligibility (see 2.4.2.) (Low, 2021, p. 25). Still, Jenkins (2011, p. xxiii) reminds critics that her LFC is not a substitute for other more traditional goals, meaning GA and BBC Pronunciation, but constitutes a suitable alternative when interaction takes place among non-

⁶ Both EIL and ELF will be considered synonyms in this dissertation.

⁷ *Tonic stress* is a syllable made prominent within a tone unit; a tone unit usually consists of a phrase or clause (Crystal, 2008, p. 487).

natives; on the emphasis put on segmentals, they have been shown to be critical to communication between two NNSs (Setter & Jenkins, 2005, p. 5).

Apart from learning contexts, the general teaching trends have also had and still have an impact on the teaching of pronunciation. With the advent of communicative language teaching between 1970 and 1980, which is said to still affect today's practices (Derwing, 2010, p. 25), pronunciation teaching was viewed as unimportant for mere input exposure would be enough to ensure correct pronunciation (Derwing & Munro, 2009, p. 481; Derwing & Munro, 2014, p. 38; Jenkins, 2004, p. 114) and experience was then the key to success (Thornbury, 2013, p. 211). If pronunciation was addressed at the time, it was still in terms of what natives did (Murphy & Baker, 2015, p. 17).

3.3.2. *The Listener*

In pronunciation teaching, taking the listener into account is important to set targets and thus has implications on the perception training in class (see 4.5.); the listener should even be considered as important to successful interaction as the speaker themselves (Derwing, 2010, p. 33). The listener's abilities to decode an utterance are in many ways determined by their language background: they may be used to certain segments and intonations and then have difficulties when hearing other unfamiliar sounds or patterns, that is, "phonological 'deafnesses'" (Dupoux & Peperkamp, 2002, p. 2), a perception "filter" (Borrell & Salsignac, 2000, p. 166), or "a phonological barrier" (Borrell, 2000, p. 204). For example, the listeners may have trouble perceiving lexical stress (Dupoux et al., 1997, p. 418), the L1 influences how the L2 is perceived (Iverson & Evans, 2007, p. 2853), and non-native listeners rely more on what they actually hear than context, meaning clear pronunciation is important to them, whereas native listeners may rely more on the context to decode what they hear (Jenkins, 2002, p. 89). The notion of phonological barrier can be extended to many language units, some of which do not belong to phonology (see 4.8.2.): segments (Borrell, 2000, p. 204), suprasegmentals (Dupoux & Peperkamp, 2002, p. 2; Intravaia, 2000, p. 229), gestures, body position in interaction, style and argumentation (Intravaia, 2000, p. 229).

Additionally, non-native listeners find highly proficient NNSs more intelligible than NSs, if they have the same L1, and if they do not have a common L1, they may find the NNSs more or as intelligible as NSs; it works both ways: a native listener will find a native talker more intelligible than a NNS (Bent & Bradlow, 2003, p. 1607). In other words, a French English learner will find any non-native talker more or as intelligible as a native English speaker, the

condition being the high proficiency of the speaker. This is called “[mismatched)]⁸ interlanguage speech intelligibility benefit’ [or] the benefit afforded by a shared interlanguage between a non-native talker and a listener” (p. 1600). This phenomenon may be explained by the listener being “better equipped” (p. 1607) to perceive and decode specific pronunciations. It may even lead to the establishment of new non-native English norms among NNSs (p. 1608) (see 3.2.). Interlanguage speech intelligibility benefit may further be linked to the familiarity with foreign speech and its impact on intelligibility scores (see 2.3.2.).

All this leads Low (2015, p. 130, as cited in Low, 2021, p. 24) to support “listener-dominated norms”: the goals to adopt then depend on the listener’s origin. This may however pose the same problem as the LFC, that is, one may never know who they may speak to.

3.3.3. *The Learner*

The learner is not to be forgotten in pronunciation teaching, especially since many of their characteristics influence their performance: their L1, their age, “the educational context” (Rogerson-Revell, 2021, p. 196), among others. The L1 may determine the pronunciation of specific segmentals: it seems common amidst Japanese speakers to mispronounce /l/ and /r/, but does not seem to be the source of any trouble for French speakers (Levis, 2007, p. 188). Besides, some pronunciation textbooks explicitly mention units or aspects to focus on depending on the L1 (e.g., Bowler & Cunningham, 2015; Hancock, 2007).

As far as the age of acquisition is concerned, it is considered “a crucial variable” (Ioup, 2008, p. 57): “late learners are not likely to achieve native-like pronunciation, but also ... native-like L2 phonology is normally found only with very early onset and the likelihood diminishes as the onset age increases” (Ioup, 2008, p. 48, see Ioup, 2008 for a review of articles investigating age and pronunciation proficiency). The first years of learning are critical in preventing fossilised forms⁹ (Derwing & Munro, 2014, p. 51), which may be a great source of frustration when, for example, adult learners have become highly proficient in vocabulary and have mastered the grammar but still stumble over basic words (Hu et al., 2013, p. 366). As reminded by Lightbown (2008, p. 6), it is necessary to keep in mind the goals targeted in order to determine if age is really so crucial.

⁸ Mismatched refers the case where the non-natives do not share their L1.

⁹ *Fossilised forms* are language forms that an L2 learner may have difficulties improving despite teaching; it may even be unlikely that these forms ever improve (Selinker, 1972, as cited in, Derwing & Munro, 2014, p. 35).

There exist other personal characteristics than the age of acquisition or the mother tongue that influence pronunciation proficiency and that are then important to take into account when tackling pronunciation in class (see Gut, 2009, p. 299 for a comprehensive overview). When testing 139 advanced German university students who had started to learn English after they had turned 10 years old, Hu et al. (2013, p. 371) assessed that “phonetic coding ability [PCA], music aptitude, empathy and openness to experience” were factors related to intelligible pronunciation. *PCA* is defined as the ability to recognise and identify speech sounds, associate them with others and with written symbols and to remember these combinations (Carroll, 1962, p. 128). *PCA* and empathy were actually the only significant predictors of pronunciation ability (Hu et al., 2013, p. 374). Still, musical education has also been found to be advantageous to perceiving stress (Degraeve et al., 2011, p. 98) and to better produce and perceive individual sounds (Gottfried, 2007, p. 236).

3.3.4. Differences Between English and French

Authors agree that both English and French are different in terms of phonology (Frost, 2011, p. 67; Vaissière, 2002, p. 16; Walter, 2001, p. 52). To Frost (2011, p. 69), one of the main differences is how stress is used, leading to an empirically attested “deafness” to stress from francophone learners (Dupoux et al., 1997, p. 406). Walter (2001, pp. 52–55) agrees on the difficulties francophone speakers have with stress in general (see 2.4.2. for a definition of stress), as well as with specific segmentals,¹⁰ which has been corroborated by Collins & Mees (2008, p. 211, as cited in Diana, 2010, p. 14). Another main difference, which again relates to stress, is that French is argued to be a syllable-timed language and English is said to be a stress-timed one (Frost, 2011, p. 71; Setter & Jenkins, 2005, p. 8). This particular notion was discussed previously (see 2.4.2.). If these differences are useful in better understanding some difficulties learners may have, it may be relevant to start from there in pronunciation teaching (Couper, 2021, p. 138).

3.3.5. Oral Teacher Input

One may wonder about the role the teacher’s input plays in acquiring pronunciation. One study looked at the comprehensibility and accentedness of learners who had received pronunciation classes from either an English native or a non-native teacher (Levis et al., 2016). Eighteen university students with an above-intermediate level of English were split up into two groups: one was taught English pronunciation by a NS of American English and the other by a Turkish

¹⁰ The concerned segments are : /i:/, /ɪ/, /əʊ/, /ɒ/, /ɔ:/, /h/, /t/, /p/, /t/, /k/, /θ/, and /ð/.

native. The classes lasted over a period of 7 weeks, were given twice a week during 75 minutes and focused on suprasegmentals. Both pre- and posttest were conducted and required listeners to rate the 18 students on their comprehensibility and accentedness. Overall, both groups improved similarly, meaning that there was no significant difference between them (p. 17). In addition, despite having a preference for a native teacher when it came to speaking (p. 22), all students valued their teacher highly (p. 21). These findings led the authors to the conclusion that pronunciation learning depends on factors others than the teacher's L1, just like any other skill learned in class (p. 23), and that it should therefore "bolster the confidence of skilled [non-native English speaker teachers] and [native English speaker teachers] alike" (p. 25).

Ioup & Weinberger (1987, as cited in Rasier, 2011, p. 121) slightly touched upon this point when they noticed that input exposure did not lead to improvement in every sector of pronunciation, meaning that input is not always enough. In their study on the importance of feedback (see 4.6.), Saito & Lyster (2012, p. 625) as well state that teacher input is not sufficient to help learners improve their pronunciation. Also, Iverson et al. (2012, p. 157) have found evidence to support that claim (see 4.5.). Finally, some pronunciation approaches almost seem to do away with oral teacher input, such as The Articulatory Approach (Messum & Young, 2021) and The Silent Way (Richards & Rodgers, 2001b) (see 4.7.).

3.4. Segmentals Versus Suprasegmentals

If the segmental and the suprasegmental levels make up pronunciation, teachers should know where to put the focus: Should they teach solely segmentals or suprasegmentals? Should they emphasise one over the other?

Yenkimaleki & van Heuven (2021) split 80 Iranian university students into four groups who received specific pronunciation training: all were taught or given explanations on one aspect of pronunciation (segmentals or suprasegmentals) and then exercised either perception or production specifically; the course accounted for 15 hours in total. A control group (without any form of explicit pronunciation training) provided comparison. Intelligibility and comprehensibility were tested before and after the pronunciation course. If all groups improved (p. 6), the segmental-production students scored best in intelligibility and the suprasegmental-perception group scored best in comprehensibility (p. 7).

Derwing et al. (1998) conducted a similar experiment. Forty-eight adult students of intermediate level were separated into three distinct groups: the control group, the segmental-based approach group and the suprasegmental-based approach group (also called the global

group); the course lasted 20 hours over a 20-week period, started with a pretest and ended with a posttest. The participants' pronunciation skills when reading were rated by native listeners for accentedness and for comprehensibility, and the same native listeners rated the students' fluency, accentedness and comprehensibility in spontaneous speech. The results indicated that the two test groups improved in comprehensibility and accentedness when reading, but only the suprasegmentals group improved their comprehensibility and fluency in spontaneous speech (p. 394). Put differently, both groups could successfully transfer their acquired knowledge to reading, but solely the global group transferred their new skills to actual speech (p. 406). Still, the authors do not favour a sole focus on prosody but rather advocate taking both levels into account for, when miscommunication occurs, repeating a word may clearly help (p. 407).

Just like the previous studies, Gordon & Darcy (2016) tested the effect of segmental- versus suprasegmental-based teaching approaches. Thirty high-intermediate students were divided into three groups: the control group, the segmental-based group and the suprasegmental-based group. Each trained pronunciation and received theoretical explanations on their respective focus, but the control group only repeated words and sentences; the segmental group specifically trained four vowels. Pre- and posttests were conducted. Twelve listeners rated the 30 speakers for comprehensibility after they had taken the course which accounted for 3 hours and 45 minutes spread over a 3-week period. Despite all groups having received similar grades on the pretest, they differed in the posttest, pointing to effective training (p. 73). According to the posttests, only the suprasegmental group showed significant improvement in comprehensibility leading the authors to state that "explicit phonetic instruction can benefit L2 learners when it is not restricted to vowel training only" (p. 81). Indeed, the segmental group's comprehensibility even decreased, which may have come as the result of too much attention drawn to four sounds, other important features then being deemphasised (p. 82). Another possible explanation is that more time is to be allocated to segments for their production to significantly improve (p. 83).

From the three above-mentioned studies and others that rather emphasised the positive impact of suprasegmentals on intelligibility and comprehensibility, the logical conclusion to draw would be to strongly emphasise the teaching of suprasegmentals. Yet, Yenkimaleki & van Heuven (2021, p. 10), Derwing et al. (1998, p. 406), Gordon & Darcy (2016, p. 84) advocate spending time learning about both levels in class, which should help keep "a balance between fluency and accuracy" (Gordon & Darcy, 2016, p. 65). This view is shared by other researchers who regret that teachers generally put too much emphasis on segments (Chun, 2002, p. xiv;

Diana, 2010, p. 12; Levis & Grant, 2003, p. 14; Munro & Derwing, 2006, p. 521; Pennington, 2021, p. 16). Eventually, suprasegmentals, unlike segments, are argued to make up “a skill [rather than a body of knowledge]” (Fraser, 2010, p. 10) and are therefore relevant to teach. Therefore, Chun (2002, p. 144) pleads for a mix of a top-down and bottom-up approach (see 3.1.).

3.5. When to Teach

If one knows what goals to pursue and what to teach, another important aspect is knowing when to teach. Pennington (2021, p. 6) deplores the usual integration of a pronunciation component in secondary schools or in universities: pronunciation explanations are given on the spot, as “a response to learner performance” (p. 6), instead of being integrated as one specific component, and if it is ever the case, it is limited to an advanced and highly proficient public. Nevertheless, Marks (2011, p. xxvi), among others (Bowen, 1972, p. 87; Derwing & Munro, 2014, p. 48; Galante & Thomson, 2017, p. 117; Gordon & Darcy, 2016, p. 58; Kissling, 2013, p. 735; Levis, 1999, p. 373; Levis & Grant, 2003, p. 14; Rasier, 2011, pp. 126–127; Taylor, 2006, p. 53; Thomson, 2012, p. 19) does insist on pronunciation exercises catering to a unique need, that is, helping students work on segments or on the suprasegmental level if they have issues communicating in speaking activities.

Pronunciation classes may not be included because of various reasons such as time and number constraints, what is then important is to integrate pronunciation teaching into other activities, like listening and speaking exercises (Derwing, 2010, p. 28). The following steps could serve as a pattern for pronunciation integration: perception exercises (see 4.5.), sound production and speaking (Couper, 2021, p. 139). Likewise Celce-Murcia, Brinton, and Goodwin (1996, as cited in Levis & Grant, 2003, p. 13) propose a comparable five-step model that starts with awareness raising and ends with speaking exercises. The keyword is here contextualising (Bowen, 1972, pp. 83–85) for pronunciation does not have to stand apart but can be explicitly linked to more form-focused lessons. For example, stress could be approached in class in a variety of ways: practising it with regard to language functions like disagreement or contradiction¹¹ (Hahn, 2004, p. 217), or with regard to vocabulary like numbers (e.g., 13 /θɜːˈtiːn/ and 30 /ˈθɜː.ti/), countable and uncountable nouns (Foote et al., 2012, p. 19) or compound nouns (e.g., “greenhouse” /ˈɡriːn.haʊs/ and “green house” /ɡriːn. ˈhaʊs/) (Bowen,

¹¹ Even if Hahn (2004, p. 217) does not explicitly say that stress could be practised with grammar, disagreement or contradiction could involve comparatives; other language functions could easily be paired with particular grammar points.

1972, p. 93). Addressing stress when seeing vocabulary makes much sense to Field (2005, p. 420) because of the very nature of lexical stress. Marks (2011) also insists on ensuring the good pronunciation of any word and suggests presenting rhythm patterns for chunks such as: “whenever you like, whoever you ask, whatever they said” (p. xxvi).

3.6. Conclusion

After reviewing the literature, it may be suggested that the goals pursued can vary, but that most researchers emphasise intelligibility (Couper, 2021; Diana, 2010) over native proficiency for it represents, to them, an unnecessary ideal (Bowen, 1972; Marks, 2011), but nativeness appears to influence today’s teaching practices (Levis, 2005) and teacher training (Detey et al., 2016). Taking the learners’ needs into account also matters a great deal (Bowen, 1972; Derwing & Munro, 2014; Galante & Thomson, 2017), for it ultimately comes down to what the learner desires to achieve (Taylor, 2006) (Q₁, “What goals should teachers pursue in pronunciation teaching?”).

In the intelligibility paradigm, using non-native models makes sense and is thus recommended since intelligible and comprehensible NNSs form realistic goals (Kissling, 2013; Murphy, 2014) (Q₆, “Do non-native accents have a place in class?”): learners are indeed more likely to be as intelligible as these proficient NNSs than to sound native. In either case, it is important not to focus too much on traditional (i.e. British or American) native models, but rather introduce learners to these non-traditional (e.g. non-native) models and highlight their positive features (e.g. being both intelligible and accented) (Jenkins, 2000; Low, 2021).

The learning contexts may however determine objectives (Q₁₁, “Do teaching contexts impact pronunciation goals?”), which are then different if English is learned as a second, foreign or international language (Jenkins, 2002; Setter & Jenkins, 2005). In EFL contexts, it does make sense to strive to sound native, but it does not in EIL contexts where several norms are acknowledged (Low, 2021). In this latter context, one specific set of pronunciation elements should be mastered and thus forms the goal to achieve, that is, the LFC (Jenkins, 2002). Going even further, some researchers suggest moving away from what the speaker wants and focusing on the listener (Low, 2021), which reveals a bit problematic because one can hardly anticipate who they are going to talk to.

Moreover, the learners’ characteristics affect pronunciation learning as well. For instance, speakers from specific language backgrounds may have more difficulties pronouncing some sounds (Levis, 2007) or perceiving stress (Dupoux et al., 1997), likelihood of native

pronunciation depends on the age of acquisition (Ioup, 2008), awareness of sounds, empathy (Hu et al., 2013), and musical education (Degraeve et al., 2011; Gottfried, 2007) positively influence pronunciation capacity.

One point teachers should all focus on, no matter the learning contexts and the learners is spending time on both segments and on suprasegmentals (Chun, 2002), even if teaching suprasegmentals have been shown to increase intelligibility more than teaching segments (Derwing et al., 1998; Gordon & Darcy, 2016; Yenkimaleki & van Heuven, 2021). Addressing both segments and suprasegmentals should be done when addressing other language components, such as lexis, grammar or language functions (Bowen, 1972; Field, 2005; Foote et al., 2012; Hahn, 2004; Marks, 2011).

Eventually, teacher input has been demonstrated to be less impactful than teaching (Q₁₂, “How does teacher input influence the pupils’ pronunciation?”): what appears to matter to improve the learners’ pronunciation is then not the teachers’ L1 (meaning the quality of input pupils get from their teachers), but other factors (Levis et al., 2016).

4. Overview of Pronunciation Teaching Methods

4.1. Introduction

The purpose of the following chapter is to give an overview of techniques discussed in the literature in order to teach pronunciation. There exists a wide array of techniques, but this chapter introduces a few pronunciation teaching methods, so the inventory is not comprehensive. These research questions are answered: “What are effective techniques to teach pronunciation (Q₂)?”, “How does feedback impact pronunciation teaching (Q₄)?”, “Is the use of a metalanguage effective to teach pronunciation (Q₅)?”

4.2. Phonetic Notation

Phonetic notation may be defined as “the use of special written symbols to refer to the sounds or sound features of one or several languages” (Mompean & Lintunen, 2015, p. 2). Because of the lack of correspondence between spelling and pronunciation in English (Jones, 2011b, p. vi; Marks, 2011, p. xxvi; van Oostendorp, 2020, p. 20), phonetic notation offers a convenient approach to consistently represent one sound with one unique symbol (Mompean & Lintunen, 2015, p. 4). In other words, phonetic notation is one kind of metalanguage, which is a key component of pronunciation teaching (Couper, 2011, p. 12) that will enable students to express what they hear or think they hear (Fraser, 2010, p. 11). Mastering phonetic notation should then not be “an end in itself”, but should be seen as a way of efficiently talking about pronunciation (Mompean & Fouz-González, 2021, p. 164).

The most commonly used metalanguage (Mompean & Fouz-González, 2021, p. 157) is the phonetic symbols from the International Phonetic Alphabet (IPA), devised by the International Phonetic Association around 1887 (Murphy & Baker, 2015, p. 7). The symbols include notation sets for segments, as well as icons to represent the suprasegmental level like “a superscript stress mark diacritic [ˈ]” (Mompean & Lintunen, 2015, p. 6).

There exist other means of representing segments (e.g., keywords), and suprasegmental features, (e.g., the ToBI system) (Estebas-Vilaplana, 2017, p. 75; Mompean & Fouz-González, 2021, p. 157), or simply using arrows, circles, capitals or underlining parts of a word can serve as ways to indicate stress (Mompean & Fouz-González, 2021, p. 158; Mompean & Lintunen, 2015, p. 6).

The potential advantages of using phonetic notation are numerous, but the main one seems to be autonomous learning (Marks, 2011, p. xxvii; Mompean & Fouz-González, 2021,

p. 157; Mompean & Lintunen, 2015, p. 6), for the symbols are used outside and inside the classroom: textbooks and dictionaries often make use of IPA or of other sorts of phonetic notations (Mompean & Lintunen, 2015, p. 3). In addition, it may prove useful when working on perception in order to provide learners with crucial adequate feedback (Fouz-González & Mompean, 2021, p. 300; Mompean & Fouz-González, 2021, p. 162) (see 4.6.). One last and general asset of IPA in particular is that it has iconic representative means for every sound of every language (Setter & Jenkins, 2005, p. 2), which then in my opinion offers interesting applications in different language classes.

Nonetheless, phonetic notation has some downsides. When looking up a word in a dictionary, one must bear in mind that the phonetic transcript, if given, is not “how English ought to be pronounced [but] how [the authors] believe some native speakers of English actually do pronounce the word” (Jones, 2011b, p. vi), which is confirmed by Lewis (2011, p. xxiv). This phonetic transcript or “citation form” is further problematic for it is unlikely to be as clear in actual speech (Cauldwell, 2011, p. xx). The Cardinal Vowel quadrilateral that vowels are often represented in, also suffers from the same disadvantage: it merely represents and is then approximate, which is why circles and not points are used (Diana, 2010, p. 16; Jones, 2011b, p. vii). One obvious disadvantage of phonetic notation is that some may consider it to be an extra burden to teach and to learn (Fouz-González & Mompean, 2021, p. 300; Mompean & Lintunen, 2015, p. 3).

Theoretically, phonetic notations are useful and a few studies have been conducted testing the potential benefits of such systems. Fouz-González & Mompean (2021) separated 71 proficient (B1 level) Spanish university students into three groups: a control group, a phonetic symbol group and a keyword group. While the control group did not receive any instruction at all, the two other groups followed a 2-hour High Variability Phonetic Training¹² (see 4.5.) program, spread over 4 weeks, focusing on identification tasks, namely the students heard a word and had to choose the correct symbol or keyword corresponding to the sound (p. 297). The learners trained on eight English vowels that are typically problematic for L1 Spanish speakers. Three perception tests were run: a pre-, post- and delayed posttest. The posttests revealed that both experimental groups performed twice as good (significantly better then) as the control group (p. 311), but that the scores were always higher for the symbol group, with

¹² *High Variability Phonetic Training* (HVPT) is a teaching method to train perception, typically of segments; the learners have to listen to a lot of input from different speakers; an often-used task in HVPT is a discrimination activity, meaning identifying whether two items belong to a same category (Fouz-González & Mompean, 2021, p. 299; Thomson, 2018, p. 209).

the exception of one vowel /ʌ/ (as in “cup”) (p. 316). Important conclusions of that study are then that phonetic symbols and keywords alike are valuable tools to help improve perception (p. 318) even with little training (p. 323), and that learners seem to better like symbols for they see them as “more beneficial and engaging” (p. 320).

As far as the learners’ opinions on phonetic notation are concerned, Mompean & Lintunen (2015) surveyed them with a questionnaire given to 177 advanced (B2-C1) university learners from three different countries (52 from Finland, 59 from France and 66 from Spain). Noteworthy is the fact that they had received classes on a phonetic notation which is said to be “based on the International Phonetic Alphabet” (p. 11). If they generally all agreed on the potential for “awareness-raising” and the visual help that notation provides (pp. 14-15), they reacted more negatively towards the advantage of “autonomous learning”, although they remained quite certain that it indeed was one of the advantages (p. 16). Despite finding it relatively simple to use (p. 19), few of them claimed to actively use phonetic notation when confronted with a new word (p. 17). Finally, a majority agreed that it would be too hard to learn for pupils under 12, but that it would be easy for those above 12 (p. 19). The main divergence between the three countries turned out to be where the participants had become acquainted with phonetic notation: a majority of Finnish said it was before university, while a large number of French and Spanish participants noted that phonetic notation was paid attention to in secondary schools (p. 20). Overall, students seem to acknowledge the potential benefits of phonetic notation for teenagers, in spite of not using it often themselves.

4.3. Technology

In the literature, there seems to be a broad consensus (Levis, 2007; Rogerson-Revell, 2021) that technology, or in this case computer assisted pronunciation teaching (CAPT) may be beneficial. Technology is versatile in the sense that it may provide learners with a freedom that is almost impossible to achieve in classroom environments (Busà, 2007, p. 165): with technology, pronunciation learning becomes individualised and this could then make the learner autonomous (Levis, 2007, p. 184; Rogerson-Revell, 2021, p. 190; Venkatagiri & Levis, 2007, p. 276). Technology may even offer students friendlier environments where they could express themselves free of stress (Rogerson-Revell, 2021, p. 190), like in the “virtual world” Second Life (Derwing, 2010, p. 30). Also, technology offers learners awareness-raising devices in the form of personal feedback, that may well be visual above all things (Chun, 2002, p. 97; Jilka, 2007, p. 94; Levis, 2007, p. 184; Mehlhorn, 2007, p. 224; Rogerson-Revell, 2021, p. 196; Thomson, 2012, p. 20). Moreover, Levis (2007, p. 188) posits the idea that CAPT should ensure

pupils may pick whatever element they need to practise on and that feedback should assist them in doing so.

Because of their many interests, authors name specific programs teachers could use as support in any pronunciation course, like PRAAT, WASP, CSL (Levis, 2007, p. 196), Moo-O, Hooked on Phonics, Endless ABC, Twinkl, Khan Kids (Low, 2021, p. 30). In keeping with recent research and trends on the use of non-native models, Low (2021, p. 30) mentions Well Said! as a good application involving NNSs. Talking heads, that is, visual computerised representations of a human head with precise inside and outside features of the mouth, may also help in pronunciation teaching (Badin et al., 2010, p. 502).

Studies have shown that technology could prove efficient in pronunciation improvement. Busà, (2007) ran a “pseudo”-experiment with 30 of her own students who, for 20 hours in the language laboratory, recorded themselves, got visual feedback and tried to make their own waveform resemble a native’s. If the students ended being able to modify their waveform, there was not any pre- or posttest to assess and quantify any effects, making this experiment a first step in the studies regarding technology.

Thomson (2011) conducted a study on 22 adult Mandarin beginner learners of English. In eight 15-to-20-minute autonomous classes spread over 3 weeks, the learners trained their perception of 10 English vowels in two contexts: “/bV/ [and] /pV/” (p. 751). During the sessions, through a computer program, the learners had to associate sounds with “nautical flag[s]” (p. 752), which were chosen over words “to avoid any confounding effects from potentially past associations between sounds and English orthography” (p. 752). Recorded in pre- and posttests, the learners’ pronunciation was scored on intelligibility by four natives in familiar (/bV/, /pV/) and new contexts (“/gV/ and /kV/ and /zV/ and /sV/”) (p. 752). The results show that improvement had taken place, despite not having been taught to produce, and that the acquired knowledge transferred to some new contexts, namely /zV/ and /sV/ (p. 758). One important drawback of the study is that the training and test stimuli consisted of non-words, meaning that transfer to actual words and to spontaneous production remains to be tested (pp. 759-760).

Fouz-González (2020) tested a commercially-available app, English File Pronunciation, with 52 proficient (B2 level) Spanish university students; four vowel sounds and two consonant sounds were chosen as the targets of training because of their tendency to be problematic for Spanish speakers. Learning was completely autonomous, with the only condition being a daily

15-to-20-minute practice. The researcher used a control group, a pretest and a posttest. The researcher tested both perception and production, in imitation, controlled and spontaneous situations, while the application itself revolves only around recognition of segmental sounds and thus around identification tasks. After a 2-week training, the learners had improved their perception and production of both known and new words, but there were differences in terms of sounds and tasks (p. 73). If the results are said to be “encouraging” (p. 74), it comes at a literal cost: 5.49 euros per application, which, according to a majority of the participants is a deterrent (p. 76).

On that note, Thomson (2012) reviewed an IPA-related, perception-based, freely-available play pronunciation website: English Accent Coach. Being similar to English File Pronunciation in its approach (i.e., identification of sounds in syllables and in words using phonetic notation), it may offer a suitable alternative, which does lead to improvements in both perception and pronunciation (p. 23).

If the previously-mentioned studies deal with segments, Levis & Pickering (2004, pp. 517–520) argue that it may be possible to practise changing topics in continuous discourse through pitch visualisation because these changes are marked by pitch (p. 510). Predicting where stress falls in a transcription, followed by visualising pitch is one idea put forward by both researchers.

Derwing & Munro (2009) rejoice at what technology has to offer but warn against some possible problems: “Technology offers a great deal of promise, provided that technological applications are guided by pedagogical specialists who understand appropriate goals and priorities in teaching pronunciation” (p. 487). Two authors (Levis, 2007, p. 185; Rogerson-Revell, 2021, pp. 190–192) denounce this. To them, much CAPT material seems to do away with today’s pedagogy and simply showcases technological advances: mere mimicry or drill-based exercises are often central to many pronunciation apps. As underlined by Low, (2021, p. 30), a necessary first step to avoid such resources or any inefficient resource is for teachers to check the efficiency and accessibility of the apps themselves first, before using them in class, or before advising pupils on pronunciation applications. In either case, teachers should lead their learners to pedagogically-accurate resources (Derwing & Munro, 2014, p. 51). Detey et al. (2016, p. 16) go a step further by reminding teachers that technology may be useful only if it helps learners meet specific needs. This is eventually doable assuming that teachers do not lack “training in pronunciation and in the use of technology”, which may sometimes be the case (Levis, 2007, p. 185).

Furthermore, many applications dedicated to pronunciation do not align with what research advocates. Despite research clearly encouraging putting more emphasis on the suprasegmental level, the focus in apps lies solely on segmentals, which then fosters the overemphasis on vowel and consonant sounds (Pennington, 2021, p. 3; Rogerson-Revell, 2021, p. 192). Besides, native-pronunciation is often promoted in CAPT, regardless of researchers' calls for a shift to the intelligibility paradigm (Rogerson-Revell, 2021, p. 192).

At the heart of CAPT stands Automatic Speech Recognition (ASR), software that recognises speech and makes feedback on pronunciation possible. Unluckily, ASR appears to be faulty for it may lack accuracy (Levis, 2007, p. 185) and may misrecognise adequate pronunciations as errors and vice versa (Rogerson-Revell, 2021, p. 194); this inability of ASR to precisely identify mistakes may lead to more general, and consequently less helpful, comments (Levis, 2007, p. 193). To illustrate these points, Rogerson-Revell (2021, p. 195) highlights the fact that an “unnaturally [slow] and [careful]” diction performs best at Australia’s computerised immigration oral fluency test.

Derwing et al. (2000) put a speech recognition software to the test: Dragon Naturally Speaking Preferred (1997). They had 30 highly-proficient speakers record a set of 60 sentences each; out of the 30 speakers, 20 were non-native (Cantonese and Spanish speakers), and 10 were native Canadian English. The ASR software transcribed the sentences, and so did 41 native Canadians, who also rated the sentences for both accentedness and comprehensibility; thanks to the transcriptions, the speakers also received an intelligibility score. If both the human listeners and the computer could transcribe NSs equally well (99.70% of the time for the humans and 90.25% for Dragon Naturally Speaking Preferred), they very much differed in their skills when they had to transcribe accented speech, despite the NNSs having been identified as mildly accented and fairly easy to understand:¹³ the transcription scores for the humans were 94.99% and 95.71% for the Cantonese and Spanish speakers respectively, while the ASR software scored 72.45% and 70.75%, which means that “more than one of every four words [was transcribed] inaccurately” (p. 600). This leads the researchers to state that ASR could help students see what they may not pronounce correctly, or provide “negative feedback¹⁴ in a

¹³ The accent scores were set on a 9-point scale: the Cantonese speakers were rated 4.53 and the Spanish speakers were rated 4.64. Comprehensibility was rated on a 9-point scale as well: the Cantonese speakers were rated 3.53 and the Spanish speakers were rated 3.35 (Derwing et al., 2000, p. 597).

¹⁴ Negative feedback or negative evidence is the opposite of positive feedback. *Negative feedback* shows that something is missing or did not occur (Kosko, 2017, para. 1). In the case of ASR, negative feedback shows that a correct sound was not pronounced.

nonthreatening context” (p. 601). However, seeing when the study was conducted (i.e., 2000), one may expect that technology has improved a lot.

Although feedback is fairly important in CAPT material, the way it is provided is even more important. Visual representations are common amidst pronunciation resources, but these are often “spectrograms, waveforms and pitch tracings” (Levis, 2007, p. 190) and they are said to be too difficult for learners to fully make use of because they lack transparency and may require formal training (Busà, 2007, p. 175; Detey et al., 2016, p. 26; Fouz-González, 2020, p. 63; Levis, 2007, p. 190; Rogerson-Revell, 2021, p. 193). Visual representations are still worthwhile to some and are incorporated into programs like PRAAT and WASP (Levis, 2007, p. 191), but others (Derwing, 2010, p. 30; Setter & Jenkins, 2005, p. 10) caution teachers against using the last two resources for they were first made in order to thoroughly research speech; yet, the WinPitch program is available in several versions, with one being specific for research and two others being specially conceived for teachers and learners. On the other hand, comparison between two visualised productions to find pitch contours, as well as the pitch levels may reveal fairly easy nonetheless (Busà, 2007, p. 175).

4.4. Drama

“Roleplay, imitation [,] communicative ‘mirroring’ [,]¹⁵ and imaginary enactment or dramatization [sic] of different characters and voices” are valuable activities which all involve adopting a certain style of pronunciation (Pennington, 2019, p. 378). To Pennington (2019, p. 377), they are valuable because they allow learners to familiarise themselves with specific pronunciations, which is a necessary first step to acquisition. The links between such activities and the benefits of exposure to various models, as explained by researchers (see 3.2.) are also quite apparent.

Evidence of advantages of drama is first found in internalised voices. When analysing the speech of an adult L2 English speaker, Moreno (2016, p. 39) showed that the suprasegmentals were altered and that they better fitted the speaker’s local norm when the L2 speaker enacted someone else’s voice; for example, when telling a story, the speaker would quote what someone had said and change his voice accordingly, resulting in better pronunciation. Despite the impossibility of generalisations based on one case study only,

¹⁵ Mirroring involves copying a speaker, that is their pronunciation, along with their non-verbal features (see 4.4.1.).

Moreno's finding is a first step in understanding how playing a role may help pronunciation teaching (p. 40).

LaScotte & Tarone (2019) obtained similar results. Ten people from various English levels and from various language backgrounds took part in intensive English lessons. When the authors examined their speech, they found that they were more grammatically accurate (p. 109) and generally more fluent (pp. 104-105) when they enacted others' voices, if the imitated people were proficient speakers. This leads the authors to recommend involving students in "classroom theatrics, [or] roleplays, acting out student-selected scenes from a film, show, novel or play ..." in order to get a better view of what pupils may actually be capable of (p. 108). A last possible advantage of such activities the authors mention is better pronunciation (p. 108).

As far as actual drama is concerned, it may potentially be stress-relieving, as investigated by Galante (2018). If her study is not directly linked to pronunciation teaching, she does emphasise that stress may weaken the learner's speaking abilities and that drama does impact pronunciation (p. 282). She split up 24 B1-level Brazilian teenagers into two groups: a drama and a non-drama group. For 4 months, twice a week, the teenagers followed a 2-hour class with different goals, either the enactment of a 15-minute play (drama group) or a personal presentation (non-drama group). At the end of the two programmes, the anxiety level, or Foreign Language Anxiety, had reduced in both groups, when compared to their anxiety levels at the beginning of the course. Nevertheless, the difference was slightly bigger for the drama group (p. 273). In addition, the drama-group learners felt more comfortable when speaking English, which may be explained by the new identity speakers had to adopt (p. 280) (see 2.3.3. for more on identity). Galante mentions that drama, apart from enhancing comfort when speaking a foreign language, does bring "added values [or] particular [advantages] [relating] to communication skills such as accuracy, eye-contact, and body language" (p. 282). Pronunciation accuracy can then be worked on through drama.

Galante & Thomson (2017) investigated drama more thoroughly and also focused on enhanced fluency (p. 116). Twenty-four B1-level Brazilian teenagers were split up into four different groups; the two experimental groups included five and eight pupils respectively, the two control groups included five and six learners respectively. Similarly to Galante's study (2018), the experimental groups (drama groups) trained to perform a 15-minute play and the control groups (non-drama groups) to give an oral presentation. Every group was given exercises on segmental and suprasegmental features, but only the drama groups took on role-playing activities, such as giving advice in specific situations. Different types of pre- and

posttests were conducted on all pupils; these demanded the pupils to describe a story in the first or third person, to retell a story after having watched a video, inventing a monologue and roleplaying with the teacher. Based on these tests, 30 Canadians rated speech samples to assess the speakers' comprehensibility, accentedness, and fluency. If all learners were considered comprehensible even though they were also said to have strong accents (p. 133), the results showed that fluency and comprehensibility only significantly improved within the drama-groups (pp. 128, 130), but the improvement in comprehensibility was little (p. 130). The drama training did not seem to have any impact on accentedness (pp. 130-131). Interestingly, the scores were dependent on the type of task: when they told a picture-based story in the first person, the learners were the most comprehensible and the least accented (p. 134).

4.4.1. Shadowing and Mirroring

Shadowing and mirroring are two techniques that resemble drama and other roleplaying activities. *Shadowing*, or sometimes called “echoing” (Derwing & Munro, 2014, p. 50) is a repetition exercise where learners echo or repeat what a model is saying; *mirroring* on the other hand involves sound reproduction as well as copying non-verbal features (Derwing & Munro, 2014, p. 50; LaScotte et al., 2021, p. 150; Luo et al., 2008, p. 2807).

Mirroring activities ending with a presentation in the style of a chosen model has been shown to have benefits: with that approach, seven highly proficient adult learners significantly improved their intelligibility (LaScotte & Tarone, 2022, pp. 753–754), managed to sound more native (p. 754), and increased their self-confidence (p. 758). Such projects support exposure to numerous speakers as (proficient) learners seem to be able to copy ways of speaking and may then improve their intelligibility. As far as shadowing is concerned, two studies demonstrated its efficiency in terms of improved imitation abilities, fluency, accentedness, comprehensibility in spontaneous speech (Foote & McDonough, 2017, p. 52), and in terms of accentedness, intonation, stress placement, and segment production in reading and spontaneous speech (Martinsen et al., 2017, as cited in LaScotte & Tarone, 2022, p. 748).

4.5. Perception

Perception is defined as “an internal mental (and physiological) process by which the perceiver recognizes [sic] incoming stimulus events as instances of mental categories” (Strange & Shafer, 2008, p. 159). It is argued to be the “underlying foundation of pronunciation” (Thomson, 2012, p. 19), the tenet being that perceiving comes before producing and that some pronunciation issues hence find their source in perception (Detey et al., 2016, p. 21; Mehlhorn, 2007, p. 218;

Setter & Jenkins, 2005, p. 6), which may be itself impeded by a phonological barrier (see 3.3.2.). An example of perception helping production is how children who had been exposed to English passively (i.e., through songs or television, without any explicit instruction) started producing contrasts that did not exist in their mother tongue (Simon et al., 2014, p. 18, 2016, p. 740): new phonological categories were forming. Pronunciation problems may be further complicated by the separation and sometimes chasm between “what we say, the physical sounds we produce, and what we think we say” (Couper, 2014, p. 37). Working on perception then only seems logical, especially with regard to the essential (VanPatten, 2002, p. 108) “noticing hypothesis” (Schmidt, 2001, p. 26), which states that learners first need to notice or have their attention drawn to a particular feature of the language before acquiring it (Schmidt, 2001, pp. 29–31; Schmidt, 1990, p. 149). In the literature, perceiving is then pointed to as the necessary condition to adapt and change one’s pronunciation (Couper, 2021, p. 130; Derwing & Munro, 2014; Setter & Jenkins, 2005, p. 6; Thomson, 2012, p. 20), and perception exercises, such as marking a stressed syllable or comparing one’s own recorded production with a native’s (Couper, 2003, p. 59, 2011, p. 11), are advocated in classroom contexts (Chun, 2002, p. 150). Eventually, working on perception may not only serve the speaker, but the listener as well (see 3.3.2.), since perceiving helps, for example, decipher the emotion behind an utterance (Chun, 2002, p. 13).

As noted by Henderson (2015), perception goes hand in hand with a switch of attention, “from the language’s features to [the] learner’s conceptions” (p. 16). When she asked 57 French university students to identify whether a speaker was British or American and to justify their choice, Henderson noticed a great disparity in the answers given (p. 15). So did she when she asked 56 of those students to explain how they would sound more British or American. Besides, some of the answers were plainly wrong (p. 15). Working on correcting these mistakes, to then improve production and basing feedback on what students perceive or think they do is advocated by the author (p. 16).

In the literature, training perception often takes the form of High Variability Phonetic Training (HVPT), which typically focuses on the segmental level, and which requires the learner to listen to large amounts of stimuli produced by varied and numerous speakers. A typical HVPT task is a discrimination exercise where the learner listens to several language forms and must discriminate, or choose, whether they correspond to the same category (Fouz-González & Mompean, 2021, p. 299; Thomson, 2011, p. 749, 2018, p. 209). Although authors do not clearly name HVPT, they do insist on making students listen to diverse speakers and

several varieties (Derwing, 2010, p. 28; Jenkins, 2000, p. 91; Low, 2021, p. 28; Marks, 2011, p. xxvi; Murphy, 2014, pp. 258, 266).

Iverson et al. (2012) tested how efficient HVPT was. They separated native adult French speakers into two test groups: one included 15 experienced subjects who had lived in an English-speaking country from 6 months to 10 years and whose comprehension of English grammar was correct, the other included 21 inexperienced subjects, who had all but one never lived in an English-speaking country and who had mastered the basics of English. The treatment consisted of eight 45-minute sessions spread over the course of 1 or 2 weeks; during the HVPT program, the learners trained 14 vowel sounds through identification exercises. After analysis, Iverson et al. (2012, p. 151) concluded that both groups had improved thanks to the training sessions in the three kinds of tasks that were tested: identification, discrimination and production. What is more, the groups were tested on new words, meaning that the subjects were able to generalise what they had previously learnt (p. 147). Because of the limited nature of the exposure to English during the study, which is far less than what the experienced subjects would be exposed to in their daily lives, the authors suggest that oral input is not sufficient to improve production but that drawing attention to specific sounds “improves L2 vowel perception” (p. 157).

Other numerous studies have been done on HVPT. In a meta-analysis, Thomson (2018) analysed and criticised 32 studies focusing on HVPT. His conclusions are fairly clear: “the studies surveyed provide compelling evidence that HVPT is a very effective pronunciation training tool, and that resulting improvements are long lasting” (p. 208); in other words, exposure to various input from different speakers helps learners forge robust phonological categories. Among that evidence, the author notes the following benefits: it is suited for adults (p. 215), acquired knowledge is generalizable to new words (p. 215), significant improvement of both perception and production occurs despite the latter being smaller than the former (p. 217), improvements last at least 4 months (p. 217). Thirty out of the 32 studies analysed tested HVPT with adult learners, only two tested this teaching process with younger learners, namely 12- and 16-year-olds. Thomson notes that only the study conducted on the 12-year-old children did not result in enhanced production or perception, but he highlights some flaws that may explain the failure and thus remains enthusiastic about the efficacy of HVPT with learners of all ages (p. 214).

Finally, perception is undoubtedly linked to the helpful concept of phonological awareness that is defined as “conscious knowledge of the sounds, syllable structure,

phonotactics and prosody of [a] target language” (Venkatagiri & Levis, 2007, p. 265). When Venkatagiri & Levis (2007) measured 17 university students’ phonological awareness level and asked 12 NSs of English to measure the students’ comprehensibility in both controlled and spontaneous speech, they concluded that the more phonologically aware they were, the more comprehensible they were (p. 273). They however state that phonological awareness could not be taken as the sole explanation for comprehensibility (p. 275). Since perception is recognition of input, explicit theoretical knowledge on production and properties of segments and suprasegmentals (i.e., phonological awareness) may reveal useful in teaching pronunciation (see 2.4.); this claim might also be supported by the impact of PCA in pronunciation (see 3.3.3.).

4.6. Feedback

The importance of feedback has been slightly touched upon: it is a central matter to technology among other fields (Levis, 2007, p. 194; Rogerson-Revell, 2021, p. 194) (see 4.3.) and is made possible by phonetic notations (Fouz-González & Mompean, 2021, p. 162) (see 4.2.). In general, researchers agree on the importance of feedback to raise learners’ awareness of the function of pronunciation (Couper, 2021, p. 137), or to simply indicate how close they are to the norm or goal pursued (Rasier, 2011, pp. 134–135). The question might then be whether feedback is truly efficient and if so, what kind of feedback.

Saito & Lyster (2012) tested the effectiveness of one specific type of feedback: recasts. *Recasts* are defined as repeating the correct form of a mistake (Lightbown & Spada, 2013, p. 140), as in the following example: “Look at the field, I can see 20 /ʃɪp/!” “Oh yes, I can see 20 /ʃi:p/.” Saito & Lyster (2012) studied the pronunciation of the phoneme /ɹ/¹⁶ (as in “race”) among Japanese adult learners after they had received instruction with or without feedback. Sixty-five Japanese adults were split into three different groups: 29 received feedback during form-focused instruction (i.e., exercises that focused specifically on the perception and production of the consonant sound), 25 followed form-focused instruction solely and 11 students served as the control group. Pre- and posttests were conducted and aimed to get acoustic measurements of their pronunciation of the phoneme /ɹ/ in spontaneous speech and in controlled contexts. If the authors cannot ascertain that the groups could generalise their instruction to new words, the pronunciation significantly improved exclusively in the form-focused instruction and feedback group (p. 624). Therefore, the authors suggest that both

¹⁶ This symbol /ɹ/ may not be found in the symbols-used section in some dictionaries like the *Cambridge English Pronouncing Dictionary* (Jones, 2011a); it is replaced by /r/.

positive (in the form of input) and direct negative (in the form of feedback) evidence is necessary for pronunciation improvement. For the learner, the feedback would then serve as “a double-check [and] [revision of] their own output” (p. 625). Yet, the two authors indicate that further research is needed on the type of feedback that would be most efficient (p. 627).

4.7. Physical Skills and the Silent Way

Pronunciation involves the physical production of sounds (see 2.2.); thus, learning how to pronounce may be compared to the process of learning a physical activity (Messum & Young, 2021, p. 172) and that is why Messum & Young (2021) support an “Articulatory Approach, based on a motor skill coaching paradigm” (p. 169). The Articulatory Approach is based on the need of explicit knowledge of how a sound is physiologically produced to guarantee correct pronunciation (Billières et al., 2013a). A first step to that approach may be a short “re-sensitisation” session (Messum & Young, 2021, p. 171) that enables to think about the invisible, automatic and unconscious movements needed to produce sounds; that session may include blowing air through the mouth to feel how the abdominal muscles contract (PronSci - Pronunciation Science Ltd, 2017).¹⁷ Then, come awareness raising activities such as using whispers and stage (or loud) whispers to better perceive how stress is physically produced (PronSci - Pronunciation Science Ltd, 2017),¹⁸ or stammering to better understand the production of schwa (Messum & Young, 2021, p. 172); others talk of muscle gymnastics whereby the jaw, the lips, the tongue, with the help of mirrors are focused on in the production of isolated segments (Billières et al., 2013a). Imitation, supported by computer imagery of the tongue position, is possible as well (Messum & Young, 2021, p. 173). Talking heads may in my view reveal useful in that respect (see 4.3.). What Messum and Young (2021) warn against is “modelling the results [that] will immediately induce attempts to match-to-target” (p. 177): the teacher should rather “coach” (p. 175) and focus on the physical skills involved.

Taking this coaching principle further, Messum & Young (2021) state that “the belief that students need an aural model to work from is incorrect” (p. 175). In other words, teachers should not, in their view, provide a model to imitate, which is strongly reminiscent of another pronunciation teaching technique: The Silent Way (Gattegno, 1972, as cited in Richards & Rodgers, 2001, p. 81). Gestures of the mouth to show sound formation, clapping to indicate stress, quickly moving the hand to ask a pupil to speed their pronunciation up, or putting one

¹⁷ The time code for the video is: 4:32.

¹⁸ The time code for the video is 8:50.

finger up to indicate a mistake in the first word of sentence are key elements of The Silent Way (silentway.online, 2021). Often, a chart full of coloured rectangles is used: these represent English sounds, that can then be matched, through pointing, with sounds the pupils are familiar with (i.e., from their L1) (silentway.online, 2021). For instance, the teacher can write the letter “a” on the board, make student repeat how the vowel is pronounced, point to a rectangle, nod to show both represent the same sound, and eventually make the whole class repeat. Once several sounds have been introduced and learned, the teacher can point to a sequence of coloured rectangles to form words. Summarised, the technique revolves around the teacher remaining silent and the learner speaking as often as possible (Howells et al., n.d.; Richards & Rodgers, 2001b, p. 81).

4.8. The Verbo-Tonal Method of Phonetic Correction

The Verbo-Tonal Method (VTM) of phonetic correction aims at improving learners’ pronunciation. The method is described in the following subsections, starting with its origins, its principles and finishing with concrete exercises within the VTM perspective.

4.8.1. Origins and the Structuro-Global Audio-Visual Method

The Verbo-Tonal Method was developed in the 1950s by linguist Petar Guiberina who focused on providing speech stimulus (hence verbo) to assess perception at various frequencies (hence tonal) (Billières et al., 2013b). VTM is to be integrated into another, larger teaching method, namely the Structuro-Global Audio-Visual (SGAV) methodology,¹⁹ because of the goals and guidelines both methods share, that is, oral communication, the importance of perception, and emphasis on real communication situations (Renard, 2000b, p. 5). Successful communication entails appropriate phonetics and pronunciation, so that is why they should be taught (Renard, 2000b, p. 6).

In VTM, there are not any pronunciation-dedicated moments in class (Renard, 2000c, p. 15), but rather pronunciation is integrated into communication activities, since it serves communication (De Vriendt, 2000a, p. 250; Renard, 2000c, p. 18). Still, the teacher should avoid pinpointing and correcting any mispronunciation in spontaneous speech acts (e.g., when a learner wants to share their opinion spontaneously), but should preferably do it when the class

¹⁹ The Structuro-Global Audio-Visual method (SGAV) encompasses exercises such as imitation of dialogues supported by clear pictures and illustrations. The emphasis is put on real communication situations and on orality, the written aspect of language coming much later in the process of language learning (Simons, 2021, pp. 15–16), 4 to 6 weeks after the beginning (De Vriendt, 2000a, p. 249); in that sense, SGAV is really “global” (Rivenc, 2000, p. 30).

is repeating a dialogue for example (De Vriendt, 2000a, p. 251). Eventually, the target pursued with VTM is an “all-purpose” accent that should resemble a native’s (Billières, 2000, p. 39).

4.8.2. Perception, Intonation and the Body

The Verbo-Tonal Method puts emphasis on three elements: perception, or teaching learners to listen (Renard, 2000b, p. 7, 2000c, p. 12), intonation (Billières et al., 2013b; Billières, 2014b; De Vriendt, 2000a, p. 254), and the role of the body in the process of perceiving and producing speech (Billières et al., 2013b).

Perception is considered crucial because it is assumed that production errors first arise because of perception errors. Foreign language speakers have, prior to their L2 learning, formed perception habits that stem from their mother tongue (Intravaia, 2000, p. 218; Renard, 2000c, p. 14): a phonological barrier has formed (Borrell, 2000, p. 204) which then acts as a “filter” in perceiving L2 sounds (Borrell & Salsignac, 2000, p. 166). This involves perception of specific sounds which may not exist in the L1, or sounds that do not exist in certain positions in the L1, but do in the L2 (see Borrell, 2000, pp. 205–207); for example, the phoneme /u/ will be mostly recognised as /u/ by French speakers when its frequency is between 150 and 300 Hertz, while English speakers will recognise it when its frequency is between 300 and 600 Hertz (Cureau, Vuletic, 1976, as cited in, Billières et al., 2013b). Each sound has then its own perceptive characteristics (Billières et al., 2013b). Intravaia (2000, p. 229) extends that concept to other fields within and beyond phonology and phonetics: melody and rhythm, physical movement, spatial distribution, stylistics, dialogues. Since the filter is here quite broad, the author insists on having a global approach (p. 233). Lastly, many other researchers who do not appear to apply VTM also emphasise both perception (Detey et al., 2016, p. 21; Mehlhorn, 2007, p. 218; Setter & Jenkins, 2005, p. 6; Thomson, 2012, p. 19) and the impact of the L1 (Dupoux et al., 1997, p. 418; Dupoux & Peperkamp, 2002, p. 2; Iverson & Evans, 2007, p. 2853; Levis, 2007, p. 188) (see 3.3.2., 3.3.3. and 4.5.).

Intonation is given priority with VTM, but this does not entail that segments are not paid any form of attention - on the contrary (Billières, 2014b; Borrell & Salsignac, 2000, p. 173). The reason why intonation is considered as more class-attention worthy is because it connects segments together and organises them through rhythm (Billières et al., 2013b); *rhythm* is defined in VTM as the height, intensity, and length differences across speech (Billières, 2000, p. 50), where repetition of a certain unit (e.g., word, stress, pause) is key (Roberge, 2000a, p. 124). Additionally, intonation carries meaning (Billières, 2000, p. 42), but also renders speech

intelligible (Borrell & Salsignac, 2000, p. 165) and less accented (Billières, 2000, p. 42); VTM is thus in line with what other researchers advocate on the influence of intonation in regard to intelligibility (Field, 2005, p. 410; Hahn, 2004, p. 210) and to accentedness (Jilka, 2007, p. 91) (see 2.3.2. and 2.3.3.). If several authors (Chun, 2002, pp. 77–78; Gussenhoven, 2002) mention three codes or four functions of intonation (see 2.4.2.), VTM makes a distinction between neutral and affective intonation, the former referring to a neutral intonation, without any particular meaning (e.g., a plain statement), and the latter referring to the expression of emotions (Roberge, 2000b, pp. 134–135). Yet, others state that such a thing as a neutral intonation does not exist (Billières et al., 2013b).

The last primary guideline is working on the body, for it is quite involved in speech production; two levels are distinguished: the micro level comprises the speech productive organs, such as the vocal folds, and the macro level comprises the whole body, as the heart beating faster when speaking, or the breathing rhythm changing (Billières, 2000, pp. 43–44; Billières et al., 2013b). The body may help in sound, rhythm or intonation realisation, as relaxation eases speech production and perception (Billières et al., 2013b). Researchers stress how bodily gestures may convey contradiction, or help make matters clearer (Billières, 2000, p. 45; Pavelin, 2000, p. 72). Why VTM works on the body has to do with the communicating goal, which involves interaction, leading to greater “body investment” (Intravaia, 2000, p. 222).

4.8.3. Concrete Applications of the Verbo-Tonal Method

Looking at the principles of VTM and of SGAV, it is not surprising that researchers advocate orality exclusively: Total Physical Response exercises,²⁰ illustrated dialogues (with pictures and recordings), listening comprehensions, question and answer exercises, model imitation (mirroring and shadowing), constantly speaking the L2 (De Vriendt, 2000a, pp. 248–249), drawing attention to acoustic cues (Borrell & Salsignac, 2000, p. 172) are activities they recommend.

Intonation and rhythm are extremely important in VTM and researchers seem to agree on the benefits of counting-out rhymes in that regard (Krnice-Wambach & Wambach, 2000, p. 94; Roberge, 2000a, pp. 114–118, 2000b, p. 142; Wlomainck, 2000, p. 159). Practising counting them is argued to help learners cope with rhythm; clapping or walking to the rhythm of a dialogue is also possible (Wlomainck, 2000, p. 156). Intonation in general can be addressed

²⁰ Total Physical Response exercises entail learners following precise actions, so they use their body totally (De Vriendt, 2000a, p. 248).

with the body, through using hand movements to represent falling or rising pitches for instance (Billières, 2000, p. 56). Uttering a sentence with every intonation one can think of is another exercise typical of verbo-tonal practitioners (Wlomainck, 2000, p. 158). If a learner struggles with lexical stress, the teacher may ask them to first repeat the stressed syllable (“grand” as in “grandfather”) and then gradually add segments (“grandf”, “grandfa”, “grandfath”, “grandfather”), and the learner should repeat each step (De Vriendt, 2000b, p. 263).

To get back in touch with the body component of pronunciation, authors make a number of suggestions: pronouncing vowel sounds while standing up, sitting down or laying down to perceive the breathing process more accurately (Krnice-Wambach & Wambach, 2000, pp. 98–99). Detailed pictures (e.g., a man saying it is hot while painfully climbing stairs) may help learners become aware of the influence of the body in certain situations (Roberge, 2000b, pp. 146–147).

A big point VTM makes is the different contexts segments appear in and how they might be influenced by these. Authors speak of combined phonetics, nuanced (Renard, 2000c, pp. 16–17) or inverted pronunciation (Billières, 2014a). De Vriendt (2000b, pp. 260–266) provides clear cases where the teacher works on the segment environment to enhance its pronunciation.

In some contexts,²¹ the phoneme /ŋ/ can be pronounced as is (“strong”) or has to be pronounced with an extra phoneme /g/ (“hunger”) (De Vriendt, 2000b, pp. 260–261). Francophone learners may have trouble knowing when to pronounce /g/, and may find it the following combination difficult: vowel sound, /ŋ/, vowel sound (the learner may erroneously add /g/ after /ŋ/) (p. 261). What may be proposed to the learner is an unusually slow sentence, wherein the word containing the troublesome phoneme is pronounced faster: “They’re singing for us”, where “singing” is uttered faster than the rest of the unit (p. 261). If the learner adds a phoneme (like /g/ or /k/) after /ŋ/ at the end position, De Vriendt (2000b, p. 264) suggests making it so /ŋ/ does not appear in final position anymore, and making the learner repeat: “I have a ring” (mispronounced /rɪŋg/) should be turned into “I have a ring, right?” and be repeated. This is called “neighbouring sounds” (p. 264) and comes close to what others call combined phonetics²² (Renard, 2000c, p. 17).

²¹ If /ŋ/ appears between vowel sounds, it must be followed by /g/ (“hunger”). If /ŋ/ is followed by an added morpheme starting with a vowel (“er”), and if /ŋ/ consequently appears between two vowel sounds, it either remains /ŋ/ if the root is verbal (“singer”), or it must be followed by /g/ if the root is not verbal (“stronger”) (De Vriendt, 2000b, pp. 260–261).

²² *Combined phonetics* (Renard, 2000b, p. 17) insist on sounds influencing one another; several principles are named and explained in Renard (200b, p. 17) but seem to be of application particularly to French.

Nuanced (Renard, 2000c, p. 16), *inverted* (Billières, 2014a), or *modulated* (De Vriendt, 2000b, p. 264) *pronunciation* equals to pronouncing exaggerated sounds. If a learner has issues with the phoneme /e/ (as in “bed”) and makes it sound like /ɛ/ (as in the French word “aide”), the teacher should try pronouncing a “close [e], similar or close to the French /e/ of ‘bédé’” (p. 264); a close phone [e] means the tongue is on a higher position in the mouth.

De Vriendt (2000b, p. 266) provides an example of how the teacher may shape the learner’s pronunciation by taking both the neighbouring and nuanced segments into account: her approach concerns the mispronunciation of the phoneme /ɪ/, as in “rat”, which is often pronounced /r/ (as in the French word “réussir”). What the author advocates is replacing the /ɪ/ by /w/ (as in “wet”) and using contexts whereby the pronunciation is eased, that is, “labial²³ consonants” (e.g., /p/ or /b/) and “rounded²⁴ vowels” (e.g., /ɒ/ as in British “got”, /ɔ:/ as in “saw”, or /u:/ as in “too”). Working on “the broom’s on the roof” or on “our professor is prudent” (p. 266) should lead to closer native-like pronunciation of /ɪ/. Still, the author does not mention what is meant by “working on” (i.e., perception, repetition, etc.).

4.9. Conclusion

The literature offers various methods to ensure intelligibility or at least improvement in pronunciation. Among these, one finds phonetic notations, whether it being the popular IPA symbols or keywords (Q5, “Is the use of a metalanguage effective to teach pronunciation?”). Phonetic notations offer many advantages, such as the potential to learn autonomously (Marks, 2011; Mompean & Fouz-González, 2021; Mompean & Lintunen, 2015) and the possibility to provide precise feedback on pronunciation (Fouz-González & Mompean, 2021; Mompean & Fouz-González, 2021), but phonetic notations have some downsides as well, such as the extra amount of work it represents to teach and to learn (Fouz-González & Mompean, 2021; Mompean & Lintunen, 2015). Empirically speaking, learning a phonetic notation has been shown to improve perception (Fouz-González & Mompean, 2021).

Then, technology offers interesting and efficient ways to improve the learners’ pronunciation (perception and production alike [Fouz-González, 2020; Thomson, 2012; Thomson, 2011]) as individualised learning and personalised feedback (Levis, 2007; Rogerson-Revell, 2021; Venkatagiri & Levis, 2007) become possible with various apps for example, but

²³ Labial is a feature and means the consonant is pronounced at or with the lips (van Oostendorp, 2020, pp. 26–31).

²⁴ Rounded refers to the position of the lips, which are then rounded (Crystal, 2008, p. 65).

teachers should always ensure that these apps are pedagogically relevant (e.g. not solely repetition-based) (Derwing & Munro, 2009). Additionally, drama and mimicking speakers' voices appear to lead to comprehensibility, intelligibility, accentedness, and fluency improvements (Foote & McDonough, 2017; Galante, 2018; Galante & Thomson, 2017; LaScotte & Tarone, 2022; LaScotte & Tarone, 2019). Working on production is effective, and so is working on perception, and that is what HVPT focuses on: through exposure to various sorts of input, learners increase their phonological awareness (Thomson, 2018), which may then solve production problems issuing from perception ones (Detey et al., 2016; Mehlhorn, 2007; Setter & Jenkins, 2005). Other methods to teach pronunciation are: The Silent Way (Richards & Rodgers, 2001b), motor-based techniques (e.g., using mirrors to see mouth movements) (Messum & Young, 2021) and the Verbo-Tonal Method (Renard, 2000a) (Q₂, "What are effective techniques to teach pronunciation?").

As far as feedback is concerned, it is argued to be a central matter to helping learners situate themselves in relation to their pronunciation goals, whether feedback is positive (i.e. correct input) or negative (i.e. explicit correction) (Saito & Lyster, 2012). There does not however seem to be conclusions on the most efficient type of feedback (Q₄, "How does feedback impact pronunciation teaching?").

In conclusion, there does not appear to be a clear consensus on what method is best to address pronunciation. What researchers agree on are several guidelines though. It seems that enhancing perception (e.g., HVPT, VTM, the Silent Way, phonetic notation enabling to differentiate what one hears and what one thinks one hears), dealing with suprasegmentals (see e.g., technology, VTM), exposing learners to various input (e.g., perception exercises, feedback, HVPT), providing precise feedback (e.g., phonetic notations, feedback, technology), raising awareness of the role the body plays (e.g., drama, Articulatory Approach, VTM), repeating and imitating (e.g., drama, shadowing, mirroring, VTM), and making use of technology are generally advocated. Still, looking at comprehensive approaches (e.g., the Silent Way, VTM, the Articulatory Approach) these sometimes appear to be opposite: the Silent Way does away with input, while VTM insists on the teacher constantly speaking English and modelling the learners' production, which is not recommended by the Articulatory Approach.

5. Teaching: Actual Practices

5.1. Introduction

This last theoretical chapter offers insights on what some teachers say they do, what other teachers actually do and what learners have to say on pronunciation. The main research question answered in this chapter is: “What is the pronunciation teaching situation in some countries (Q₁₁)?” Textbooks are also dealt with and this provides an answer to the question: “Are textbooks suitable ways to teach pronunciation (Q₃)?” The answers are useful in positing hypotheses in Chapter 6. Prior to finding these answers, Q₃ must shortly be addressed. “Suitable” is used instead of another adjective like “effective” for I do not discuss any data on the supposed efficiency of textbooks (which would then be tested measuring intelligibility improvements through pre- and posttests for example). In addition, the efficiency of textbooks is “supposed” because one must distinguish what textbooks contain and how they are used by the teacher or the pupil. In short, Q₃ pertains to the contents of textbooks, or to what they have to offer.

Surveys on teachers’ point of views and their teaching practices are valuable tools to “[help] ensure research and pedagogical advice are appropriately directed” (Couper, 2017, p. 820). Yet, compared to other branches of teaching (e.g., grammar, focus on form, etc.), surveys on pronunciation seem to have been given little attention (Baker, 2011a, p. 82; Murphy & Baker, 2015, p. 2). In spite of their interest to better gain “insight into how teachers’ beliefs and knowledge interact in the language classroom and influence their pedagogical behaviors [sic], actions and activities” (Baker, 2011b, p. 82), such surveys must be carefully considered because they may not be representative: some types of participants may want or not to take part in it (Foote et al., 2012, p. 16), most surveyed (and researched) teachers teach proficient adults (Pennington, 2021, pp. 6–7), opinions and answers may be wrong (as in Couper, 2021, p. 140; Galante & Piccardo, 2022, p. 383) and what the participants say they do, is not often what they actually do, as shown in Sato & Kleinsasser (1999, p. 513). That is why questionnaires on stated data are simply not enough to really comprehend what is done in class, and must then be supplemented with “classroom observations [and] ... student reports” (Baker, 2014, p. 155). They may also suffer from various biases (see 6.3.3.). In other words, results from the following surveys must be taken with a pinch of salt. They nevertheless constitute useful tools, as explained above; other advantages are detailed in the next chapter (see 6.3.3.).

5.2. Teachers’ Reported Practices and Beliefs

Because of the great variety found in articles dealing with teachers' reported practices and beliefs, the methodology is detailed in an appendix (see Appendix A). The articles are examined based on the similarity of the conclusions they draw.

A first major theme that arises from most articles on teachers' reported practices and beliefs is the training. This is apparent in the amount of questions teachers ask themselves regarding pronunciation (Couper, 2021, p. 134): they have questions because they lack formal or scholarly education in pronunciation. They wonder about the learner (e.g., how to make them realise the importance of pronunciation, how to make them aware of their possible shortcomings, how to test and measure their pronunciation abilities), the contents (e.g., what aspects to teach in class, whether L1 and L2 comparison is relevant), the ways to teach (e.g., what activities to use), the legal texts, textbooks, and time (e.g., how to implement pronunciation despite it not being addressed in textbooks or in curricula, how to cope with time issues) and about their own pronunciation (e.g., how to improve their own pronunciation, especially with regard to the differences between their L1 and English) (pp. 133-136).

Moreover, Henderson et al. (2012) summarise that lack of training in one term: "participants' comments reveal that many, if not most appear to be amateurs when it comes to teaching pronunciation" (p. 13), amateurs in the sense of being passionate, but also in the sense of not having the necessary skills: both the evaluation of their "training in relation to teaching pronunciation" and the evaluation of its quality turned out to be poor, except in Finland²⁵ (p. 13). Often, working teachers did not learn about the pronunciation methodology (Foote et al., 2012, p. 10), but were provided with knowledge of more formal fields (i.e., phonetics and phonology) which may still be incomplete, especially as far as stress and intonation are concerned (Couper, 2017, pp. 829–830). Having taken phonology or phonetics classes might however not concern a majority of practitioners (Baker, 2011a, p. 87; Foote et al., 2012, p. 10): pronunciation training may have revolved around repetitions of different kinds (Baker, 2011a, p. 87; Couper, 2017, p. 829), or may have been fulfilled during continuous learning (Couper, 2017, p. 830; Foote et al., 2012, p. 10). The poor knowledge of pronunciation and its teaching may lead to a reliance on coursebooks and colleagues (Baker, 2011a, p. 90), reduced confidence (Baker, 2011a, p. 91; Couper, 2017, p. 831; Foote et al., 2012, p. 14), reluctance (Macdonald, 2002, pp. 7–11), or even avoidance of pronunciation in class (Couper, 2017, p. 831). Besides, the teachers themselves view training as influential (Baker, 2011a, p. 88), but most consider

²⁵ The different countries surveyed were: Finland, France, Germany, Macedonia, Poland, Spain and Switzerland (Henderson et al., 2012, pp. 8–9).

what they have received in terms of teaching as “woefully inadequate” (Henderson et al., 2012, p. 23). In conclusion, based on the results they got, Henderson et al. (2012) state that “limited or no specific training in teaching pronunciation seems to be the norm, but non-native English speaker respondents have usually received training in improving their own pronunciation” (p. 15). Nevertheless, this overall finding does not mean that teachers are not willing to learn and fill in the gaps in their education (Couper, 2017, p. 830; Foote et al., 2012, p. 14).

Also, this same conclusion does not entail a total absence of pronunciation teaching in class, for it is deemed important (Henderson et al., 2012, p. 9) at every level (Foote et al., 2012, p. 15) and pronunciation instruction is seen as effective and not boring (pp. 13–14). Its implementation ranges from “up to a quarter of [the] weekly teaching time” (Henderson et al., 2015, p. 269), a well-established component of their lesson, and on-the-spot feedback (Foote et al., 2012, p. 10), to “an [unintegrated] and [non-fundamental] [position as an] element of language or language learning” (Macdonald, 2002, p. 10). The assumption often shared by teachers that “having a good pronunciation is sufficient for teaching pronunciation” (Henderson et al., 2012, p. 14), coupled with their highly-self-rated pronunciation skill (p. 12) might explain this paradoxical situation (i.e., global absence of training but teaching nonetheless).

On goals, teachers advocate intelligible communication (Couper, 2017, p. 831; Henderson et al., 2012, p. 10), but some express a preference for “accuracy, clarity and fluency” (Couper, 2017, p. 831) or for native-like proficiency (Timmis, 2002, p. 243). Details may be added as their attitude towards accents and norms. “Accented intelligibility [is] the most desirable outcome” for most instructors (Timmis, 2002, p. 243), with more NS teachers having such a goal than NNS ones. This “accented” precision pertains to many who reject accent deletion because accent is part of the speaker’s own identity (Couper, 2017, pp. 833–836; Foote et al., 2012, p. 19); the social dimensions of pronunciation then make up a discouraging factor to some: because it is said to be “very personal” (Macdonald, 2002, p. 9), attempting to change a learner’s pronunciation may feel “intrusive” (p. 9) or other instructors may be concerned about imposing a specific norm (Couper, 2017, p. 832). Yet, this is precisely why other teachers pursue accented intelligibility, that is, in order to keep the learner’s identity whole (Timmis, 2002, p. 245). Still that goal may not suit learners, who most long for native proficiency (p. 248) for it is seen as “a benchmark of achievement” (p. 242), or as a helping factor in integrating an L1 community (2002, p. 242).

As far as the norms are concerned, only a European survey provides data on that matter and the results suggest that RP²⁶ is the standard most widely employed, despite a stated learners' preference for GA (Henderson et al., 2012, p. 20). Another norm was mentioned but not defined: international English (p. 20).

The final common conclusions are linked to the range of exercises done in class. Textbooks and curricula sometimes play a role in determining the activities (Couper, 2017, p. 832; Foote et al., 2012, p. 11; Macdonald, 2002, pp. 7–11) and the availability of suitable resources and material is another determining element (Macdonald, 2002, pp. 7–11). One may then think of the language laboratory and the many possibilities it offers, but the access to one seems to depend a lot on the country: 7% of the German respondents claimed they had a language laboratory available in their school, against 100% in Switzerland. (Henderson et al., 2015, p. 269). The most generally used exercises are: “minimal pairs ..., employing some repetition ..., using mirrors,²⁷ having students record and listen to themselves, and using diagrams of the mouth to explain correct articulation and having students feel where/how they were speaking” (Foote et al., 2012, pp. 12–13). Perception was found to be commonly trained as well (Henderson et al., 2015, p. 270). Phonetic symbols were also discussed and a minority of instructors teach how to write them while an overwhelming majority teaches how to read them, but their selection depends on the difference between the L1 and L2 segments, the believed complexity of a sound, the teachers' mastery of the symbols, and the teachers' degree of ease with technology, which is considered crucial to phonetic symbols teaching (Henderson et al., 2015, pp. 271–272). Evaluation of pronunciation involves “oral performances ... reading aloud and listening comprehensions” (p. 275). If there are not any details on what teachers evaluate, an analysis of the pronunciation activities teachers speak of reveals that most exercises focus on segments (55 out of 144) (e.g., sound pairs), then on suprasegmentals (39) (e.g., intonation marking), then on the two levels (26) (e.g., repetitions) and on “other” things²⁸ (24) (Foote et al., 2012, p. 13).

5.3. Teachers' Observed Practices

²⁶ RP is used here, in place of BBC Pronunciation, to match the contents of the survey, so is GA.

²⁷ Although there are not any details as to what is referred to when talking of mirrors, it seems to be actual mirrors (and not mirroring activities) to work on lips positioning in comparison with a model.

²⁸ Only one instance of an activity within that category is given in the article, “working one on one” (Foote et al., 2012, p. 13), but this activity is not detailed or explained at all.

As mentioned previously, there may exist a gap between what instructors say they do and what they actually do (see Sato & Kleinsasser, 1999, p. 513). It is therefore interesting to observe teachers at work.

Foote et al. (2016) recorded 40 hours of three teachers' practices who taught 11- and 12-year-old francophone learners in Quebec in an intensive ESL context (pp. 181-182). A first observation is the fact that none of the teachers used pronunciation-dedicated coursebooks and that pronunciation did not constitute separate teaching lessons (p. 186). Then, percentages were calculated and pronunciation made up 10% of the "language-related episodes", against 70% for vocabulary and 20% for grammar (p. 187). More on these language-related episodes (i.e., moment dedicated to either pronunciation, vocabulary or grammar), they accounted for 17% of the total classroom time, with the remaining percents being "classroom management" (75%), and "personal anecdotes, text-based input and discussion of text-based input" (8%) (p. 187). These numbers are far less than the quarter of weekly teaching time mentioned in surveys (Henderson et al., 2015, p. 269). During the 40 hours, only the segmental level was addressed, encompassing "possessive and plural 's', past tense endings, 'th' sounds and phonemes /f/, /v/, /w/, /p/, /b/, /i/ and /l/" (Foote et al., 2016, p. 188). Thus, this finding matches teachers' stated practices (Foote et al., 2012, p. 13). Still, there was individual variation as to the preferred use of words or of sounds to teach segments.

Amidst the activities used or pronunciation-related episodes, spontaneous feedback, recasts in this case (Foote et al., 2016, p. 193), occurred the most, followed by repetitions, "often done as a choral repetition of a tongue twister [sic]²⁹" (p. 189). The researchers try to explain the relative "lack of emphasis on pronunciation [in] a high communicative, intensive teaching context" (p. 191) and the mismatch between what is done and what is said to be done in surveys (e.g., activities relying on suprasegmentals) (p. 191) and so they call upon familiarity with pronunciation errors, that is especially important in classes where all have the same L1: because pupils and teachers have got used to mispronunciations, these do not entail miscommunication anymore (p. 192), which is an effect stressed by several researchers (Gass & Varonis, 1984, p. 81). Another explanation is the fact that segments are less difficult to correct than suprasegmentals (Roberge, 2000b, p. 137), which may require "specialised terminology" (Foote et al., 2016, p. 192), and specialised material (e.g., computers to display waveforms to work on pitch [see 4.3.]); the overall lack of formal training among practitioners may be a last

²⁹ Bowen (1972, p. 86) stands very critical towards tongue-twisters, qualifying them as "wholly without merit" for he does not understand how putting a large number of problematic sounds one after the other may help.

reason (Baker, 2011a, p. 91; Couper, 2017, p. 831; Foote et al., 2012, p. 14; Macdonald, 2002, pp. 7–11).

Baker (2014) interviewed and observed five teachers who taught in the same North American Intensive English Program, the goal of which is to “help L2 learners of English achieve sufficient language proficiency to succeed in undergraduate or graduate programs in North American universities” (p. 140), so the teaching public consisted here of international students. The observations account for 200 minutes per teacher (p. 142). The researcher did not focus her analysis on the level (segmental or suprasegmental) addressed in class, but rather on the type of activity used, that is “controlled, guided [or] free” (p. 143). *Controlled exercises* are exercises where the teacher has the leading role (e.g., repetitions, minimal pairs); *guided exercises* are exercises where a general frame is provided (e.g., information gap, open-ended questions and answers); *free exercises* are exercises where the learner has the dominating role (e.g., roleplays, oral presentations) (pp. 143–144). A total of 25 techniques³⁰ were identified and fell, for a great majority (i.e., 15), on the controlled end of the spectrum, six techniques were identified as guided and four as free (p. 145). The results match surveys indicating the most widely used activities (Foote et al., 2012, pp. 12–13). Baker suggests that the teachers who had followed pronunciation methodology classes made use of more varied activities (Baker, 2014, p. 148), assessing the stated influence of training (Baker, 2011a, p. 80).

5.4. Learners’ Points of View

Whether pupils or students, learners offer interesting insights into views on pronunciation and how it is integrated into the classroom.

Derwing & Rossiter (2002) investigated adult’s views on pronunciation: they questioned 100 adult immigrants from various L1 backgrounds on the possible communication problems they had encountered in Canada. A majority indicated difficulties to make themselves understood and in their view, pronunciation was one of the reasons why (p. 160), so it explains the high percentage (90%) of respondents saying they would follow pronunciation instruction courses if they had the opportunity to do so (p. 161).

Similarly, Kang (2010) surveyed 238 adult ESL learners in the United States (123 respondents) and in New Zealand (115 respondents) on pronunciation instruction (p. 107) and

³⁰ Here are instances of activities (see Baker [2014, pp. 146–147] for a detailed list): clapping when reading a word and discrimination (controlled), peer feedback in pairs and class identification of forms uttered by a learner (guided), enacting a movie scene and oral presentations (free).

the results echo those found in Derwing & Rossiter (2002), that is, almost all participants “reported that pronunciation is important for communication, [that] they are concerned about it, and therefore want to improve the way they sound very much” (p. 108). One point the students differed in depending on the country they were studying in was that of willingness to achieve native-like pronunciation proficiency. In New Zealand, 37% of the students “did not think it was desirable to sound like a native speaker”, and 26% sometimes made a conscious choice to sound foreign (reminiscent of results found in Gatbonton et al. [2005, p. 504]), while only 5% of the American students expressed such negative opinions towards desirability to sound native, and 8% said they intentionally avoided a native accent (Kang, 2010, p. 110). Eventually, the New Zealand learners pinpointed a lack of a proper model to follow (i.e., the teacher) and of proper guidelines in their pronunciation lessons (pp. 111-112). Therefore, Kang calls for a deeper investigation of the impact of the teacher’s pronunciation (p. 114), and this desire can be contrasted, in my opinion, with studies suggesting how little impact teacher input has (see 3.3.5.): despite not clearly helping learners improve their pronunciation, teacher input (and especially stance with regard to accents and models) does seem to play a role in the learners’ perception of what to expect from pronunciation instruction, as hinted at by Kang’s conclusions (pp. 111-112).

On the other hand, Tergujeff (2013) based a discussion of pronunciation on an overlook of textbooks³¹ with 10 EFL Finnish learners, six of whom were 15 or 16, two of whom were 10 and two of whom were 18. In spite of not having a specific pronunciation norm as a target, the learners expressed preferences for “an accent that is familiar to them, ... British Received Pronunciation” (p. 84), but only as an ideal: the learners did insist on targeting intelligible and fluent speech (p. 84). Besides, the RP³² accent is familiar because it was the accent they were mostly exposed to in class (p. 88), corroborating data from Henderson et al. (2012, p. 20). According to the learners, common pronunciation activities involve marking lexical stress after listening to a word, spontaneous feedback, choral repetitions, aloud readings and audio segments that can be listened to at home (Tergujeff, 2013, pp. 85–87), but other less controlled activities (such as oral presentations) may not have been mentioned by the learners for they do not, in their minds, fall within pronunciation activities (p. 86). Phonetic notations are not part of these commonly used activities (p. 87), except at primary schools (p. 92), which is in line with comments on the pronunciation approach in high schools, that is, the learners believe “[it]

³¹ The books were used to start a discussion with the learner based on exercises they would regularly do in them (Tergujeff, 2013, p. 85).

³² RP is used here instead of the preferred BBC Pronunciation to better match the contents of the article.

is not paid enough attention [while] [it] is taught extensively at the primary level” (p. 92). Overall, Tergujeff’s findings match what has been observed in classrooms and stated by teachers.

4.5. Textbooks

One may argue that the last actor in the classroom, next to the learners and the teacher, is the textbook, which may constitute the skeleton of the lessons (Thornbury, 2013, p. 217), specifically for beginner teachers who may be in dire need of material (Diepenbroek & Derwing, 2014, p. 2) or for any teacher who may need information they lack on a specific subject (e.g., pronunciation) (Derwing et al., 2013, p. 25); to teachers, they also form one essential resource in integrating pronunciation in class (Baker, 2011a, p. 90; Couper, 2017, p. 832, 2021, p. 135; Foote et al., 2012, p. 11). In addition, they are one of the ways to bridge the gap between researchers and practitioners (Gut et al., 2007, p. 5). Thus, textbooks may be interesting to analyse in terms of what they have to offer with regard to pronunciation teaching.

Derwing et al. (2013, p. 22) quantitatively and qualitatively analysed 48 popular ESL coursebooks out of 12 series (which were identified as the most sold in Canada by their respective publishers³³), as well as six teacher’s guides, and their conclusion is telling: “many of the series reviewed ... provide inadequate support to either the teacher or the learner, evidenced by a limited range of task types, few clear explanations ... and limited review of pronunciation features covered” (p. 37). As far as quantity is concerned, the percentage of the series dedicated to pronunciation varies greatly, from 0.4% to 15.1% (p. 28), with some individual books containing no pronunciation exercises at all (p. 30). The most common topics addressed are the following: intonation (290 activities counted out of a total of 1844 activities), sentence stress (256), lexical stress (218), rhythm (182), “reductions” (152) (e.g., “wanna” or “dunno”), vowels (136) (p. 28). The suprasegmental level is then more often covered than the segmental level, in spite of a great variety of vowels and consonants addressed (p. 33). Even if many elements are covered, the authors’ criticism stems from the sporadic frequency of theoretical explanations that may not help understand and learn suprasegmentals (pp. 34, 36). If the number and the different types of activities is inconsistent across all books, one kind of exercise is “most consistently used across all series analysed”: listen and repeat tasks, which

³³ These publishers were: Oxford University Press, Pearson Education, Longman, Pearson Longman and Cambridge University Press (Derwing et al., 2013, p. 26).

may reveal ineffective if not supplemented by adequate and explicit guidelines and feedback (p. 35). Other authors criticise such practices as well (Levis & Grant, 2003, p. 14).

Careful use of textbook material is pinpointed by Levis and Cortes (2008, as cited in Foote et al., 2012, p. 5) who noted that minimal pairs in coursebooks are peculiar: one of the words of the pair is seldom used in actual speech. Then, the models provided by textbooks consist most often of GA and BBC pronunciation (Levis, 2005, p. 371), or of native speakers (Thornbury, 2013, p. 215). Furthermore, Tergujeff (2013, p. 85) decided to use coursebooks to prompt reactions on pronunciation instruction from Finnish pupils but noticed that it revealed difficult to simply find a pronunciation-related exercise; she also listed the activities used: “phonetic training, reading aloud, imitation, rhymes, rules and instructions, awareness-raising activities, spelling, dictation and ear training” (p. 85). Yet, the pupils’ reactions revolved around far fewer task types (p. 85), maybe pointing to a limited use of the made-available activities. Finally, Rossiter et al. (2010, p. 599) report that fluency is very seldom trained in ESL textbooks.

Overall, textbooks do not appear to offer suitable material to solely base one’s teaching of pronunciation on. Yet, this does not mean that the textbooks that were surveyed and analysed cannot be efficient as there is not any data on their efficiency, on the improvement they could lead to, and on their actual implementation and use in class. In other words, a teacher could use a textbook to instruct their pupils in pronunciation and complete or improve its teaching with other material.

4.6. Conclusion

Two research questions may now be answered. Although the approach to pronunciation teaching varies across countries, a number of common points have been made clear thanks to several surveys (Q₁₁, “What is the pronunciation teaching situation in some countries?”). Training in formal fields seems to have been incomplete (Couper, 2017) and training in pronunciation methodology seems to be generally lacking (Foote et al., 2012), with various consequences. Among these, one finds reduced confidence (Couper, 2017), reliance on external pronunciation resources (Baker, 2011b), and avoidance of pronunciation overall (Couper, 2017; Macdonald, 2002). Yet, teachers tackle pronunciation in class nonetheless (Henderson et al., 2015), and they are even willing to learn more and fill in the gaps in their training (Foote et al., 2012). Their teaching goals revolve around either native-like proficiency (i.e., BBC Pronunciation or undefined international English) (Henderson et al., 2012; Timmis, 2002), or,

for most of them, (accented) intelligibility (Couper, 2017; Henderson et al., 2012; Timmis, 2002) because they are fully aware of the social aspects of pronunciation (Macdonald, 2002).

Turning to what teachers actually do, they state the activities first depend on the material available, or on what the textbooks provide (Couper, 2017; Macdonald, 2002), which deal with pronunciation differently in terms of models (e.g., NSs only), quantity (e.g., low variety of exercises, mainly listen and repeat tasks) and quality (e.g., very few clear explanations) (Derwing et al., 2013; Levis, 2005; Thornbury, 2013) (Q₃, “Are textbooks suitable ways to teach pronunciation?”). Then, classic classroom pronunciation activities are repetitions, perception-based or phonetic-notation-based exercises, oral performances and various controlled activities (e.g., minimal pairs) (Baker, 2014; Foote et al., 2012; Henderson et al., 2015). Eventually, common to many teachers, is their emphasis on segments over suprasegmentals (Foote et al., 2012).

In spite of addressing pronunciation in class, what the teachers claim they do, does not appear to satisfy their learners who demand more of its teaching (Derwing & Rossiter, 2002; Tergujeff, 2013) because they consider pronunciation highly (Kang, 2010). Interesting is the learners’ goals which range from sounding native, to consciously not sounding native or being intelligible (Kang, 2010; Tergujeff, 2013), and they therefore do not always match what the teachers aim for.

Learners may not be happy with how pronunciation is dealt with in class because actual practice does not correspond to stated practice. Researchers observed teachers for up to 40 hours and realised pronunciation is barely introduced in class, when compared to grammar or vocabulary, and when pronunciation is indeed introduced, it concerns the segmental level only (Foote et al., 2016).

6. Survey: Stated Practices

6.1. Introduction

As mentioned previously (see 5.1.), surveys are valuable tools. Most interestingly, the survey used here and the answers it has received allow to compare what research recommends doing and what practitioners say they do. The aim of the questionnaire is to look at the state of English pronunciation teaching in francophone Belgium, in EFL contexts, in secondary and further education. Several themes are³⁴ surveyed: the goals pursued and the norms used in pronunciation teaching, the reasons influencing pronunciation teaching as a whole, the training teachers have received in pronunciation (teaching), the contents taught, the activities used, and the integration of pronunciation into the classroom.

6.2. Hypotheses

In total, this dissertation targets 23 different questions, 12 of which are answered in the previous chapters and 11 of which are answered through the results obtained via the questionnaire. Almost every question³⁵ answered theoretically is answered practically thanks to the participants' responses. The research questions, along with the hypotheses (H₁₃), are presented in the Table 2.

Table 2

Research Questions and Their Hypotheses for the Survey

| Research Questions | | | Hypotheses |
|--------------------|--|-----------------|--|
| Q ₁₃ | What goals do teachers pursue in pronunciation teaching? | H ₁₃ | The pronunciation goals revolve around either being intelligible or having a BBC Pronunciation accent. |
| Q ₁₄ | What techniques do teachers use to teach pronunciation? | H ₁₄ | Teachers mainly use repetitions and oral presentations. |
| Q ₁₅ | Do teachers use textbooks to teach pronunciation? | H ₁₅ | Teachers rely on (dedicated) textbooks to teach pronunciation. |
| Q ₁₆ | How do teachers use feedback regarding pronunciation? | H ₁₆ | Teachers mainly use recasts when a segment impairs intelligibility. |
| Q ₁₇ | Do teachers use any kind of metalanguage to teach pronunciation? | H ₁₇ | Teachers may use IPA. |

³⁴ Present tenses instead of past tenses are preferred in this chapter, especially when the structure of the survey is detailed (see 6.3.2.). At the time of writing Chapter 5 (beginning of May 2023), the survey is still open; the results are presented in the present because they reflect common practices or the teachers' habits.

³⁵ The two questions which do not receive a practical answer in Chapter 5 are: "What is the pronunciation teaching situation in some countries (Q₁₁)?" and "How does oral teacher input influence pronunciation (Q₁₂)?"

| Research Questions | | Hypotheses | |
|--------------------|---|-------------------|--|
| Q ₁₈ | Do teachers call upon non-native accents in class? | H ₁₈ | Teachers solely use native speakers in class. |
| Q ₁₉ | What norms do teachers refer to when teaching/evaluating pronunciation? | H ₁₉ | Teachers refer to BBC Pronunciation. |
| Q ₂₀ | What features do teacher teach/focus on regarding pronunciation? | H ₂₀ | Teachers rather focus on segments and on lexical stress. |
| Q ₂₁ | Why do teachers (not) teach pronunciation (much)? | H _{21.1} | Teachers lack training in pronunciation theory. |
| | | H _{21.2} | Teachers lack training in pronunciation teaching methodology. |
| | | H _{21.3} | Teachers are not confident when teaching pronunciation. |
| | | H _{21.4} | Teachers believe exposure to input is enough. |
| | | H _{21.5} | The lower teachers rate their pronunciation abilities, the less likely they are to teach pronunciation thoroughly. |
| Q ₂₂ | What kind of training in (teaching) pronunciation did/do teachers get? | H _{22.1} | Teachers received little training in pronunciation teaching methodology. |
| | | H _{22.2} | Teachers received some training in phonology and/or phonetics. |
| | | H _{23.1} | Pronunciation-dedicated moments mainly arise whenever communication breaks down. |
| Q ₂₃ | How is pronunciation integrated into the classroom? | H _{23.2} | The implicit or explicit integration of pronunciation into the classroom depends on the teachers' self-rated pronunciation level, in terms of pronunciation, ability to teach it, and mastery of theoretical concepts. |

The hypotheses are derived from conclusions and reports from various surveys, observations and from authors' comments (see Chapter 5); personal experience³⁶ with the Belgian school system clarified some hypotheses. The following paragraphs explain where the hypotheses are taken from.

It is hypothesised that pronunciation goals in francophone Belgium revolve two poles: being intelligible or having a BBC Pronunciation accent (H₁₃). It comes from teachers who

³⁶ My personal experience with the Belgian teaching system consists of a bachelor's degree in Germanic languages (Agrégation de l'enseignement secondaire inférieur, orientation langues germaniques) obtained in 2019 at Les Rivageois; this schooling comprised 160 hours of traineeship in schools. I also taught various English and Dutch classes in 2019-2020, and I taught English for 3 months in 2022.

reported on their teaching goals (Couper, 2017, p. 831; Henderson et al., 2012, p. 10; Timmis, 2002, p. 243). The norm most used in Europe, that is, RP³⁷ (Henderson et al., 2012, p. 20) and the norm used in Finland specifically back the hypothesis (Tergujeff, 2013, p. 88). If teachers target BBC Pronunciation, it only seems logical that they use it as a norm for teaching, evaluating, and correcting pupils (H₁₉), and that they use it, along other native accents, in listening comprehensions (H₁₈). These hypotheses are also supported by analyses of textbooks that mostly provide native models (Levis, 2005, p. 371; Thornbury, 2013, p. 215).

It is assumed that teachers mainly use repetitions and oral presentations when teaching pronunciation (H₁₄). This hypothesis comes from generally used pronunciation exercises (Foote et al., 2012, pp. 12–13; Tergujeff, 2013, pp. 85–87), evaluation practices (Henderson et al., 2015, p. 275), attested common exercises (Baker, 2014, p. 148; Foote et al., 2016, p. 189), and textbook activities (Derwing et al., 2013, p. 35). It is quite possible that instructors use a wider range of activities, and these may include other exercises research bring up, such as aloud reading for example (Henderson et al., 2015, p. 275).

It is advanced that teachers rely on (dedicated) textbooks to teach pronunciation (H₁₅). This assumption stems from surveys where textbooks were found to be influential in pronunciation teaching (Baker, 2011, p. 90; Couper, 2017, p. 832; Foote et al., 2012, p. 11; Macdonald, 2002, p. 7-11). The occasional reliance on and the global importance of coursebooks also point towards that hypothesis (Derwing et al., 2013, p. 25; Diepenbroek & Derwing, 2014, p. 2; Thornbury, 2013, p. 217).

It is posited that teachers mainly use one type of feedback, that is, recasts, in one specific situation, that is, when a segment impairs intelligibility (H₁₆). This hypothesis is based on comments made by a researcher on pronunciation implementation (Pennington, 2021, p. 6), on observed teaching practices (Foote et al., 2016, p. 193), on learners' statements (Tergujeff, 2013, pp. 85-87) and on the level that teachers seem to mostly focus on, that is, segments (Foote et al., 2012, p. 13, 2016, p. 188). Because the use of feedback seems so important, it is also used to suggest another hypothesis: pronunciation-dedicated moments mainly arise whenever communication breaks down (H_{23.1}). This statement must be linked to the exercises used for pronunciation (H₁₄).

³⁷ RP is used here instead of BBC Pronunciation, because it is explicitly mentioned by the authors (Henderson et al., 2012, p. 20).

Besides, how pronunciation is tackled (i.e., explicitly or implicitly) is argued to depend on how teachers rate themselves in terms of how good they believe their own English pronunciation is, how good they believe their mastery of theoretical concepts is, and how good they believe to be at teaching pronunciation (H_{23.2}). In this dissertation, pronunciation is assumed to be dealt with implicitly if teachers rate themselves poorly overall, but it is not assumed that a high self-given rating on pronunciation always entails a highly explicit integration of pronunciation, for grasp of pronunciation theory and adequate teaching capacities may play a role as well in the explicit or implicit nature of pronunciation teaching. It is nonetheless expected that teachers give themselves low scores when it comes to pronunciation theory for they appear to lack training in phonetics and/or phonology (Baker, 2011, p. 87; Couper, 2017, p. 829-830; Foote et al., 2012, p. 10; Henderson et al., 2012, p. 13), and for textbooks seem to offer inadequate theory (Derwing et al., 2013, pp. 34–36).

Furthermore, because segments are said to be what teachers mostly focus on, it is hypothesised that the features stressed in class are segmentals and lexical stress (H₂₀), since segments (Foote et al., 2016, p. 188), along with lexical stress (Tergujeff, 2013, pp. 85-87) are reported to be taught. Suprasegmentals are said to be addressed in class (Foote et al., 2012, p. 13), hence lexical stress also standing at the heart of pronunciation teaching.

The use of a metalanguage is claimed to involve IPA only, and is claimed not to be regular (H₁₇). This hypothesis relies on the statements made by teachers on their use of phonetic notations (Henderson et al., 2015, pp. 271–272); IPA was chosen over other metalanguages because of its wide use in the pronunciation field (Mompean & Fouz-González, 2021, p. 157). Despite teachers stating they use a phonetic notation, it is expected to be occasional (therefore “may” in the hypothesis), based both on supervisor Mr Simons’s input and on personal experience.

In addition, seeing how training influences practices (Baker, 2014, p. 148; Baker, 2011, p. 80), it is advanced that reasons for (not) teaching pronunciation (much) are: the believed positive impact of exposure to input that thus replaces formal teaching (H_{21.4}), the lack of training in pronunciation theory (H_{21.1}), the lack of training in pronunciation methodology (H_{21.2}) (Baker, 2011, p. 91; Couper, 2017, p. 831; Foote et al., 2012, p. 14; Macdonald, 2002, p. 7-11), and the lack of confidence that results from the supposed absence of training (H_{21.3}) (Baker, 2011, p. 91; Couper, 2017, p. 831; Foote et al., 2012, p. 14). The impact of teacher input is hypothesised to play a determining role in how much of pronunciation is taught, because it is strongly recommended by researchers to constantly speak English in class (De Vriendt, 2000,

pp. 248-249) and by legal Belgian documents (Fédération de l'Enseignement Secondaire Catholique, 2018, p. 60; Wallonie-Bruxelles Enseignement, 2020, p. 55). Then, how thorough teachers are in their approach of pronunciation (e.g., a wide array of elements seen in class, introduction to IPA, explicit instruction, varied techniques, use of resources, etc.) is claimed to be dependent on their self-ratings of their own pronunciation, of their mastery of pronunciation theory and of their teaching abilities (H_{21.5}).

Finally, the reported lack of training in teaching methodology, in phonetics or in phonology, coupled with the global dissatisfaction with that training (Henderson et al., 2012, p. 23) form other hypotheses, namely that teachers received little training in pronunciation teaching methodology (H_{22.1}) and that they received some training in phonology and/or phonetics (H_{22.2}).

6.3. Methodology

6.3.1. Constructing the Survey

Throughout the whole process of constructing the questionnaire, four variables were kept in mind: the public, the language used, the software used and the General Data Protection Regulation. The survey was designed for English teachers in EFL contexts in francophone Belgium, hence the use of French, for it was assumed to be the mother tongue of the targeted public. Then, the respondents could either work in secondary schools, whether lower or upper secondary, and in further education, at any stage. These two criteria were important as to coming up with the necessary items (e.g., in collecting information on the respondent, or specific words used in the questions³⁸) and as to the translation of some terms used (e.g., functional load, motor skills). Because of its integrated save feature (see 6.3.3.) and because it is unlimited in the number of responses it can get, Google Forms (<https://docs.google.com/forms>) was chosen over other software (e.g., LimeSurvey, SurveyMonkey). Question design was highly dependent on the software used because it has a limited number of options; discussions on answer modality were then driven by what Google Forms allows. Legal requirements concerning the General Data Protection Regulation were addressed in the introduction and applied in the questionnaire.

³⁸ For instance, the fourth question in Section 3 had to be written in such a way that both university-trained teachers and non-university-trained teachers could answer: the question is on training in linguistics (which caters for university-trained teachers) or in language (which caters for non-university-trained teachers).

The first step in designing the survey took place in late October 2022 during a meeting with PhD student Mrs Renson, who went into detail about the basics of designing a survey: the types of questions preferred, the order they should appear in, the way to write them, the tools and software available, the sections and what they encompass, the ideal date to launch the survey, and the test periods. She also provided advice on enhancing the number of respondents and insisted on the necessity to have every question from the questionnaire linked to a research question. In early November 2022, a very early draft of the survey was deeply looked at to ensure the demanded connections and to apply the given advice, and was thus modified accordingly.

On 30th November 2022, supervisor Mr Rasier revised and commented the very first version of the questionnaire and suggested modifications with regard to pronunciation theory. December marked the beginning of questionnaire proofreading with supervisor Mr Simons. Prior to every meeting (i.e., 19th December 2022, 9th February 2023, 21st April 2023, 26th April 2023, 12th May 2023), a revised version of the draft was sent to him. With Mr Simons, every question and item were analysed in terms of research questions, hypotheses, relevancy, easiness to analyse and language. On 13th March 2023, Mr Rasier corrected the definitions that were used in the questionnaire. When an adequate version of the questionnaire had been put up, it was sent to Mrs Renson for her to proofread it. She thus received the sixth version on 23rd April 2023. Her relevant comments and remarks were discussed and taken into account with Mr Simons a few days later. A total of eight versions came before the testing phase, with the ninth one being the final version (see Appendix B).

The trial run took place as soon as Mr Simons and Mr Rasier had validated the questionnaire, that is, on 26th April 2023. A crucial factor in determining who could be a tester was their teaching network. It was decided to test six teachers from subsidised free education, three from public schools organised by Wallonie Bruxelles Enseignement, and one from subsidised public education, as recommended by Mr Simons and as to have a number of teacher-testers in line with the current landscape of the Belgian school system. Indeed, there are more schools from subsidised free education than public schools (Renson, 2023, p. 188) and the number of testers from each network matches the amount of pupils in each network: 61.57% of all Walloon pupils attend subsidised free education, 23.38% public schools, and 15.05% subsidised public education (Fédération Wallonie-Bruxelles, 2020). Thus, 10 teachers were chosen as testers and were sent a questionnaire via email; these were the five teaching assistants at the University of Liège (who were teachers in secondary schools as well), two

previous trainee supervisors, two other teachers suggested by Mr Simons, and one student colleague who was simultaneously teaching as well.

Some minor changes were made to the trial-run questionnaire in order to better collect opinions from the testers. For each multiple-choice question (MCQ), an item “other” was made available for the trial run, and at the end of every section, an open-ended question was added so that the respondents could report on any encountered problems, whether it was technical, language-related, knowledge-related, or whether an item or definition was missing. Another open-ended question required them to put in the time they had taken to complete the questionnaire; a last open-ended question asked the testers if they thought any major theme relating to pronunciation was absent. These added questions were made compulsory to ensure comment collecting, so, for example, if the testers had not come across any issue, they were asked to type in a message saying so (e.g., “OK”, “/”). These details were explained in the email they received (see Appendix C).

The trial run ended on 12th May, when the 10 respondents had answered the questionnaire. Every suggestion, remark, comment and added item were then sorted out in a table (see Appendix D), which was sent to and discussed with Mr Simons on 12th May 2023. Despite first wanting to take large tendencies into account (i.e., at least two similar comments), the trial run revealed so fruitful that every remark was looked at and taken into consideration, but this does not mean that every remark indeed made its way onto the final version of the survey.

The changes made to the eighth version, after the trial run, were the following. The form was modified as spelling mistakes were corrected and some lexical units were put in bold to highlight differences between following questions. As far as content is concerned, adverbs, such as, “primarily” or “most frequently” were added whenever a question demanded solely one answer. Some questions and sometimes their guidelines were detailed or slightly changed in order to add items and in order to improve comprehensibility. The detailed changes are provided in the appendices (see Appendix E), so is the trial run questionnaire (i.e., the eighth version) (see Appendix F).

6.3.2. Structuring the Survey

The survey is divided into nine different sections, counting the introductory presentation and conclusion. The questionnaire comprises four questions aimed at gathering data on the participant and 36 other questions about pronunciation in general, with each section dealing

with a specific theme. All questions are in line with the legal requirements provided in the General Data Protection Regulation (General Data Protection Regulation, 2016): every answer is indeed anonymous and confidential.³⁹

Thirty-eight questions are compulsory, with only two being optional because they require a specific answer to the previous question. For instance, question number 1 (Q1) is about the level the teachers work in (i.e., secondary schools and/or further education), and the second question asks for information as to what subject field they may teach in (i.e., general, technical and/or vocational education), if they selected secondary schools; Q2 had to be made optional, for further education does not make a distinction between different subject fields. Question 20 is the other non-compulsory question.

All of the questions are either closed MCQs or scales (e.g., importance scales, Likert scales⁴⁰), meaning that the participants never have to write any answer themselves, but only have to choose whatever options best suit them, with the reason behind this choice being the relative ease of compiling and analysing such data. The choice of having closed questions only may however have proved harmful to the survey as a whole (see 6.3.3.). There is one open-ended question and it is the non-obligatory Q20: in that question, the respondents have to write the name⁴¹ of the resources they said they use in teaching pronunciation.

Most of the questions allow for one answer only (15 questions in total) or are scales where the respondents have to choose one option only (15 questions in total), while the remaining questions allow for several answers to be selected (nine questions) or are open-ended (one question). Generally, the participants are forced to select an answer and cannot add their own if none of them correspond to their practice. In other words, an “other” option is not available,⁴² which may be one flaw of the survey (see 6.3.3.).

Before being questioned, the teachers are provided with definitions of various technical terms used in the subsequent questions. Questions from Section 2 to Section 6 included are preceded by such explanations. Because there are quite a few definitions⁴³ and because they are

³⁹ Other required measures are ensured at an institutional level.

⁴⁰ *Likert scales* contain a certain number of similar-themed statements that participants have to choose an option on, that is, they have to select one option among several, such as “totally disagree”, “disagree”, “agree”, “totally agree” (Dörnyei & Taguchi, 2010, p. 27; Krosnick & Presser, 2009, p. 20).

⁴¹ Here, “names” refer to actual brand names of pronunciation resources, such as Cambridge’s *Pronunciation in Use* for example.

⁴² There is one exception : Q3 in Section 1 (i.e., “What is your mother tongue?”) where teachers can select either “French”, “English” or “Other.” The participants can then add their mother tongue.

⁴³ There are five definitions for Section 2, nine for Section 3, eight for Section 4, 15 for Section 5, and two for Section 6, which bring the total up to 39 definitions.

from 2-, to 7-line-long, they were much discussed with both Mr Rasier and Mr Simons as to whether they should remain on the Google Forms questionnaire or be put on another document that would be available through a hyperlink. Eventually, they were kept within the questionnaire for they were considered crucial to comprehensibility. On the one hand, they make the questions comprehensible, and they guarantee that both the respondents and I are more or less on the same page as to what the terms mean; the participants may indeed skip the definitions or may understand these differently than expected. On the other, the definitions may have worked against the survey (see 6.3.3.).

The introduction presents the goals of the questionnaire and the method used. It details for whom the questionnaire is, how many questions there are, and how long it should take to answer them all. The introduction also stresses that the answers are anonymous and confidential and that the research interest lies in teachers' practices and opinions, meaning that there are not any right or wrong answers. The introduction invites the respondents to send an email if they are interested in getting the results, and it eventually closes on thanks.

Section 1 aims at collecting information on the respondent's profile through four questions. The teaching level (Q1) is divided between lower and upper secondary education, and so is further education (UF 1-2 and UF 3-12), with the reason being that they require different degrees. The precise years of what lower and upper secondary education cover, are detailed to ensure clarity. Other pieces of information are collected, that is, the subject field (general, vocational, technical [technique de transition, technique de qualification]) (Q2), the mother tongue (Q3), and the amount of teaching experience (Q4), in spans of 5 years, as recommended by Mr Simons.

Section 2 encompasses two questions, revolves around goals and norms, and thus directly relates to the subsection of the same name in this dissertation (see 3.2.). The questions are which norm is used in evaluating the pupils' pronunciation (Q1) and which goal the teachers pursue in terms of pronunciation at the end of the pupils' secondary education (Q2); this time period helps respondents answer with one specific type of pupils in mind. The first question relates to H₁₉ and the second question concerns H₁₃.

Section 3 contains six questions and relates to various opinions, beliefs about pronunciation and also relates to teacher training. A first Likert scale (Q3) confronts the participants with a wide range of 23 statements and asks whether they totally disagree, disagree, agree or totally agree. Four possible answers instead of five (e.g., "neutral", "no opinion") are

available to force respondents to make a choice (Dörnyei & Taguchi, 2010, p. 28). After the Likert scale, come other questions on training, that is, what it consisted of in both linguistics (Q4) and language teaching methodology (Q5), if they had ever followed pronunciation classes after graduating (Q6), and if they desire to do so (Q7). The last question of the section (Q8) requires respondents to choose one out of four different schooling periods, which one would be best to start teaching English pronunciation; the four periods were chosen because they are the start of four traditional stages of the Belgian schooling system, and the goals for the end of each of these stages are laid out in legal documents. These periods are: the fifth year of primary education (i.e., the second stage of compulsory schooling), the first year of secondary education (i.e., the first stage of secondary education), the third year of secondary education (i.e., the second stage) and the fifth year of secondary education (i.e., the third and last stage of secondary education). The hypotheses tested in this section are H_{21.1}, H_{21.2}, H_{21.3}, H_{21.4}, H_{21.4}, H_{22.1} and H_{22.2}.

Section 4 examines teaching contents through seven questions. The first two questions are about how teachers primarily teach (i.e., focus on theoretical explanations or solely on production) (Q9), and about what they actually teach (e.g., vowel/consonant sounds, stress) (Q10). Questions 11, 12 and 13 (as well as Q16 in Section 5) have specific response modalities: they allow respondents to rank a definite set of items regarding one characteristic. For instance, in Q11, participants have to rank seven pronunciation elements in terms of how important they are in their English class, but every item has to be given a different value, from 1 to 7. In Q12, teachers have to choose three pronunciation elements in terms of how troublesome they are for their pupils, and then have to rank them on a 3-point scale. In Q13, the teachers have to do the same as in Q12, but have to rank three methods of selecting pronunciation elements worth to teach. The last two questions of Section 4 are linked to phonetic notations such as IPA and the possible reasons why teachers use it or not; Q14 is an MCQ and Q15 is a Likert scale. The hypotheses tested here are H₁₇ and H₂₀.

With 14 questions, Section 5 investigates the teaching methods and thus relates to Chapter 4 of this dissertation. The themes are varied: Q16 deals with different activities (e.g., discrimination, drama) and requires teachers to rank three that they have chosen out of the 14 proposed, Q17 assesses, with a Likert scale, how explicit or implicit⁴⁴ teachers are when they

⁴⁴ *Explicit teaching* is a type of teaching whereby the teacher makes the objectives and steps to achieve these objectives clear; the learners know what is expected from them and are provided with feedback (Renson, 2023, p. 111). *Implicit teaching* is automatic learning of knowledge without explanations as to the reasoning behind that knowledge (p. 116).

tackle pronunciation in class, Q18 is about ways to present a new pronunciation element (e.g., through pictures or various comparisons), Q19 is about the potential use of textbooks or any other resources (e.g., sites, phone applications, posters), and Q20 is one of the two optional questions and asks teachers to type in the name(s) of the textbook(s) or site(s) mentioned in Q19. Questions 21 through 24 offer insights into how immediate feedback is and on what kind of mistakes it is on (i.e., every, main or intelligibility mistakes). Question 21 and Q22 form a pair that differ only in activity researched (i.e., spontaneous speech acts and aloud reading); Q23 and Q24 form another pair that differs only in activity researched (i.e., spontaneous speech and aloud reading). Question 25 is a Likert scale on the precise type of feedback instructors use. Question 26 is another Likert scale on the pronunciation elements focused on. Question 27 asks teachers how frequently they use native and non-native accents in listening comprehensions. Question 28 and Q29 are two Likert scales that deal with the same theme, that is, how pronunciation is integrated into the classroom, but Q28 is about whether pronunciation is a stand-alone class every now and then, is integrated into other modules, or whether it is its own independent module, while Q29 pertains to the more classical elements (i.e., vocabulary, grammar, syntax, pragmatics) combined with pronunciation. The hypotheses investigated in Section 5 are H₁₄, H₁₅, H₁₆, H₁₇, H₁₈ and H_{23.1}.

Section 6 focuses on vocabulary lists and evaluation with four questions. Question 30 and Q31 examine when there is information regarding pronunciation in a vocabulary list and what it is on. Question 32 looks at how heavy pronunciation weights in tests, and Q33 looks at whether pronunciation can be a criterion in oral tests resulting in failure if not met. Rather than checking hypotheses, Section 6 zooms in on some aspects of pronunciation to detail assumptions made earlier (H_{23.1} and H_{23.2}).

Section 7 consists of three 10-point scales participants have to situate themselves on regarding three values: how good their own pronunciation is (Q34), how good their mastery of the theoretical concepts in pronunciation is (Q35), and how good their pronunciation teaching ability is (Q36). The point of this section is to compare the participants' self-assigned scores with their answers (e.g., the range of items focused on in regard to their mastery of theory), but it also tests H_{21.5} and H_{23.2}.

The conclusion thanks the respondents for their gracious help and invites them to send an email in case they agree on letting me observing one of their classes dealing with pronunciation.

The order of the questions is not random at all, but follows a simple pattern: from the more general questions to the more precise ones. For example, the later questions (i.e., Q21 to Q33) tackle very precise themes, like feedback (Q21 to Q26), listening comprehensions (Q28), vocabulary lists (Q30 to 31), or tests (Q32 and Q33). Because they ask respondents to rate themselves and because this can dishearten some if they consider themselves poorly, Q34, Q35 and Q36 are placed at the very end of the questionnaire.

6.3.3. *The Shortcomings of the Survey*

Questionnaires or surveys such as the one used here suffer from a number of biases, among other possible flaws. The following subsection explains the potential shortcomings of the survey used, after highlighting some interesting aspects of surveys in general.

Questionnaires remain advantageous to researchers in terms of amount of possible themes, and in terms of “time ... effort, and ... financial resources” (Dörnyei & Taguchi, 2010, p. 21): through software, questionnaire answers may be gathered and analysed quite fast, in comparison to one-to-one interviews for instance. If they target pronunciation or any classroom-related subject, they offer possibilities to fine-tune “research and pedagogical advice” (Couper, 2017, p. 820) for the researcher gains access to potential correlations between what teachers believe and what they claim they do (Baker, 2011, p. 82) (see 5.1.).

Still, biases are present in the survey. The *social desirability bias* is one bias inherent to the questionnaire (Krosnick & Presser, 2009, p. 37; Oppenheim, 2001, pp. 138–139): the questions may be obvious as to what answer is expected, or socially “desirable/acceptable” (Dörnyei & Taguchi, 2010, p. 8), leading the respondents to choose that one socially expected answer over what they actually do or believe. Because quite a few respondents⁴⁵ are trainee supervisors who have worked with the university of Liège before, the social desirability bias may have seen its effects increased: they indeed know that the questionnaire is supervised by Mr Simons, head of the modern languages methodology department at the university of Liège, and may choose the academically adequate answer. *Self-deception* is another bias whereby a respondent chooses an answer in order to avoid self-deception (Dörnyei & Taguchi, 2010, pp. 8–9). One question where both of biases may influence the answers is the last item of Q25: the respondents are asked how frequently they correct a pronunciation mistake, or not. The answers “often” and “always” (i.e., they hardly ever or never correct pronunciation mistakes) may be

⁴⁵ It is impossible to tell the percentage of trainee supervisors who answered the questionnaire, but it is quite likely that there are quite a few of them in the respondents, seeing how the survey was made public (see 6.3.4.).

avoided, for leaving mistakes uncorrected may be frowned upon in teaching. The general introduction aims at reducing both theses biases, through stating that there is no right or wrong answers to any of the questions, and assuring the answers are anonymous and confidential (Krosnick & Presser, 2009, p. 39).

The *acquiescence bias* may influence participants as well: humans tend to naturally agree with a statement when they are doubting (Dörnyei & Taguchi, 2010, p. 9; Krosnick & Presser, 2009, p. 21; Oppenheim, 2001, p. 181). To reduce the effects of the acquiescence bias, words with positive and negative connotations in the items were avoided (Dörnyei & Taguchi, 2010, p. 90; Oppenheim, 2001, p. 181), MCQs were included, and overall comprehensibility was ensured (Krosnick & Presser, 2009, pp. 23–24), through using clear definitions and through testing the questionnaire before opening it to a wider audience.

Seeing the amount of questions (four about the respondent's profile and 36 on pronunciation) and of definitions (39 definitions), the *fatigue effect* must be discussed as well: inaccurate answers may arise when a questionnaire is “too long or monotonous” (Dörnyei & Taguchi, 2010, p. 9), so, as a result, the last sections and their questions may suffer from respondents getting tired (Krosnick & Presser, 2009, p. 46). The large amount of definitions, their length, and their complexity in some cases, may increase that fatigue effect. However, the number of questions was kept to a minimum through linking them with research questions⁴⁶ and a save feature was added to the questionnaire to allow respondents to leave and come back to the survey any time they wanted, but this feature is not mentioned in the introduction and is usable only if the respondents log on to their internet browser with an email address.⁴⁷ Because the questionnaire was sent on its own, meaning that the other master students' questionnaires were sent later on, in a separate email then, fatigue effect was decreased, in comparison with a collective email with several students' questionnaires.

The order the question appear in, or the *order effect*, may impact the participants, especially towards the end (Oppenheim, 2001, p. 112): if a global question follows a precise one, the researcher runs the risk of “putting ideas into the respondents' minds or to suggest that they should have attitudes when they have none” (p. 112). Remaining general at the beginning of the survey, while being more precise and detailed in the last questions aims to reduce the influence of question order. Yet, Q28 and Q29 could have come much earlier in the

⁴⁶ For example, four questions were deleted after the eighth version of the questionnaire because those did not bear any link to the research questions.

⁴⁷ None of the email-addresses are collected if the respondents indeed log on to their browser with an email address.

questionnaire for they are quite global (i.e., inclusion of pronunciation modules within the class and combination of pronunciation activities): they could have been put either at the start of Section 5, that is, have become Q16 and Q17, or they could have been put before the IPA subtheme, that is, have become Q14 and Q15.

Additionally, scales are subject to “*error of central tendency*” (Oppenheim, 2001, p. 233), or the tendency for questionnaire participants to avoid the “extreme categories” (p. 233). For example, in Q11, the respondents may be less inclined to use the two ends of the scale for some items, or the respondents may have avoided the items “totally (dis)agree” in Q3.

As recommended (Dörnyei & Taguchi, 2010, pp. 41–42), specific lexis and structures were avoided so that the questionnaire could remain clear and unambiguous. Yet, some “non-specific adjectives” or “universals” (pp. 41–42) were used, such as, among others, “mostly” (e.g., in Q1), “good” (e.g., in Q3), “main” (e.g., in Q23 and Q24), “never/often/sometimes/always” (e.g., in Qs25 to 29). The frequencies “never”, “often”, “sometimes”, “always” were pinpointed as downsides of the sixth version of the survey by Mrs Renson because they are part of these “universals” (p. 42). More precise replacements, such as “none of the pronunciation modules”, “one pronunciation module out of three”, “two pronunciation modules of three”, “every pronunciation module” for Q29, were submitted to and discussed with Mr Simons in the seventh version, but the initial frequency adverbs were eventually kept throughout the whole questionnaire because they were deemed comprehensible, and more so than the replacements that had been thought of. As far as Q27 is concerned, it contains the adverb “mostly” but the adverb was added after the trial run, for one tester wondered if it would be relevant to distinguish between listening comprehensions as exercises or as tests. The comment was discussed, was not considered to make it as is into the final version but was taken into account, as seen with the addition of the adverb. Furthermore, “good” pertains in every case to “good pronunciation”; “correct pronunciation” should have been used instead, for it is defined at the beginning of Section 3, as referring to the norm (i.e., BBC English or GA) the respondents use when correcting pronunciation mistakes.

However, precise wording was used to avoid ambiguities. The second and eighth questions are good examples as they are both detailed enough to avoid ambiguities that the testers had pointed out. In Q2, the participants have to identify the pronunciation goal aimed for the end of schooling; in Q8, the participants have to choose the ideal moment to start teaching pronunciation in English as a first foreign language (as opposed to English as a second language). One may still argue that it is not precise enough since a subject field (i.e., general,

technical and/or vocational education) in Q2 or a grade in Q8 is not mentioned, and since goals may vary depending on the subject field or on the grade.

Negative constructions were reduced as much as possible to ensure comprehensibility (Dörnyei & Taguchi, 2010, p. 42), but one negative construction is used in the last item of Q25 (i.e., “I do not correct the mistake”). It may be argued that, despite the negation, it is fairly easy to match the item with “never”, “sometimes”, “often” or “always”, that it is a necessary item relative to feedback, and that putting the sentence in the positive form would not make much sense since the other items are types of mistake correction.

Moreover, the survey has another shortcoming which was put forward by several of the testers: the difficulty to generalise over every class, subject field, and level the respondents teach (i.e., secondary schools and/or further education), and the difficulty to pick one definite answer. Many times, the testers commented that the level they targeted depended on the class they taught, or they simply said that it was difficult to choose one goal among the three possible answers (Q2, Section 3). Questions 14 and 15 were given similar comments as to the lack of nuance available in the items. The testers gave identical comments on Q22 and Q23: sometimes they delay and sometimes they do not postpone their feedback. These comments were taken into account and the adverbs “mostly”, “primarily” and “most frequently” were added to the MCQs, and precisions were given in the guidelines to help participants generalise their answers (e.g., Q2).

Some “forced questions”⁴⁸ are also open to criticism, such as Q11 that demands respondents to list pronunciation features in terms of their relative importance on a 7-point scale, with the condition that each feature be on a different point in the scale. Some testers found it difficult to deal with that question and that condition, for they had wished to assess vowel and consonant sounds at the same level of importance, for instance. The results of such forced questions will then have to be considered carefully.

6.3.4. *Administrating the Survey*

On 16th May 2023, around 8:30 a.m., the survey was sent to the headmasters of 43 schools in Belgium, from all school networks. The school were selected through the Belgian education

⁴⁸ *Forced questions* are defined here as questions whereby the respondents must make a choice and are thus not free in their answers (see the explanation for Q11). Although the term “forced question(s)” does not appear as is in the literature, authors mention “forced choice” (Dörnyei & Taguchi, 2010, p. 34), “a set of forced choices” (Oppenheim, 2001, p. 140), and “forced choice questions” (Krosnick & Presser, 2009, p. 22) or “forced choice items” (p. 45).

system's official website (i.e., <http://enseignement.be>) which provides lists of schools in Belgium: 35 were chosen from the province of Liège, eight schools were selected for the other four francophone provinces. If no balance was reached between the two school networks in Liège, a 1/1 ratio was stricken for the other provinces. The schools were randomly selected. The survey was sent via email, directly to the headmasters if their address was available on the school website (which was mostly the case); if not, it was then sent to the only email mentioned. The email (see Appendix G) introduced who I was, where and what field I was studying, what and for whom the survey was, as well as a few details about the survey. The email also explicitly asked whether they would accept to forward the survey to their EFL teachers.

On 16th May 2023, around noon, an email (see Appendix H) was sent to one of the teaching assistants at university, Mrs Van Hoof, to ask her kindly to transfer the survey to the list of trainee supervisors. An email for them specifically was provided as well. The same day, around 3 p.m., the survey was sent to previous colleagues I had worked with in 2019 and in 2020 (see Appendix I), to previous teachers who had supervised my traineeships (see Appendix J), to Mrs Renson (see Appendix K), and to the teaching assistants at university (see Appendix L). I also called upon one teacher from Les Rivageois, with whom I had graduated in 2019, to ask if she would be willing to share the survey with her previous students (see Appendix M). A message was shared on the private university group with old classmates who had already got their teaching degree (see Appendix N). A private message was sent to a former teacher of mine in secondary school with whom I had kept contact (see Appendix O). In total, 15 private messages were sent. Eventually, a message was published on my Facebook wall and was made visible to both friends and their friends (see Appendix P).

With every email, private message or publication, the goal was to entice friends, former colleagues, former teachers to either complete the questionnaire themselves or to share it on social media or privately with teachers they know: *snowball sampling*, or “a chain reaction” (Dörnyei & Taguchi, 2010, p. 61) was thus pursued (Oppenheim, 2001, p. 43).

To enhance participation rates and start a chain reaction, each message contained more or less the same essential pieces of information, that is, the public targeted, the time it would take to complete the questionnaire, the most frequent type of questions (i.e., closed questions), the ensured confidentiality, the absence of right or wrong answers, the research interest, and an invitation to spread the questionnaire on social media or amidst friends and acquaintances. The content did not differ much between the various kinds of messages, but the form did, in order

to suit the formality needs: for example, private emails made mention of the headmasters' or teachers' names and the Facebook publication contained emojis.

Strategic choices to ensure better visibility were made as to what time the various messages should be sent: the headmasters received the questionnaires early, for they may take the most time out of all reached candidates to share it, teachers were contacted around 3 p.m. for it is the time most of them finish school and get home, the same logic applies to the time of the Facebook post (i.e., 3 p.m.).

The survey remained open for a bit more than a month, that is, from Tuesday 16th May 2023 until Monday 19th June 2023. Ideally, it should have been kept open longer, but time constraints urged me to close it sooner. Still, more than half of the responses (i.e., 44) were collected in the first four days (16th to 19th May). Monday was chosen as the final day to give respondents the weekend to answer.

No reminders were sent to the headmasters or to any of the desired participants, with the reason being the busy periods that the end of May and the beginning of June are for headmasters and teachers alike. Still, a comment was written on the Facebook publication, every week, to make sure it remained visible on people's wall.

6.3.5. Processing the Survey

When it closed, the survey had received 57 answers in total ($N = 57$). It had also been shared more than 55 times on Facebook, and at least by six headmasters, who confirmed that they had forwarded the survey to their English teachers. It is quite possible and plausible that the questionnaire was shared more times than the given numbers: some Facebook users may choose to send the survey privately, or to share it with particular confidentiality parameters, and some headmasters may have transferred the questionnaire without having said so.

Since most of the questions were compulsory, there was no need to sort out answers and delete the incomplete ones. Google Forms provides various kinds of charts and detailed numbers or percentages and these were used for the analysis.

6.4. Analysing the Survey

The following section presents and describes the answers to the questionnaire in chronological order. An actual thorough interpretation and discussion of the results with regard to the hypotheses follow this section; short comments linking both theory and the results are given if relevant. Whenever possible and relevant, tables and figures are shown to ease comprehension

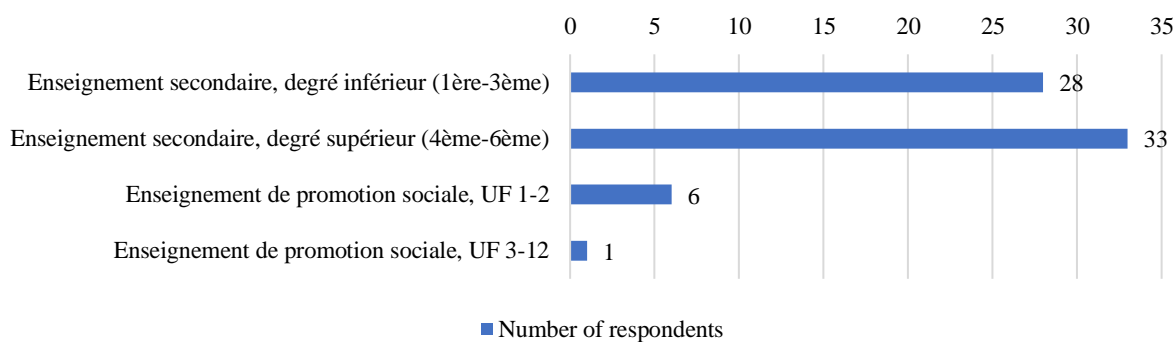
and these are further clarified by explanations and colours (e.g., light green to show the highest percentage and light orange to show the lowest). All percentages are rounded to the first decimal in order to remain coherent in regard to Google Forms, which rounds percentages automatically. Eventually, the questions are referred to either in the text or in the tables or figures in French, so the French punctuation norms are consequently applied (e.g., empty space before a question mark).

6.4.1. Section 1: The Respondents' Profiles

Figure 1

Share of Respondents in Different Levels and Stages

Q1) Dans quel type d'enseignement enseignez-vous ?

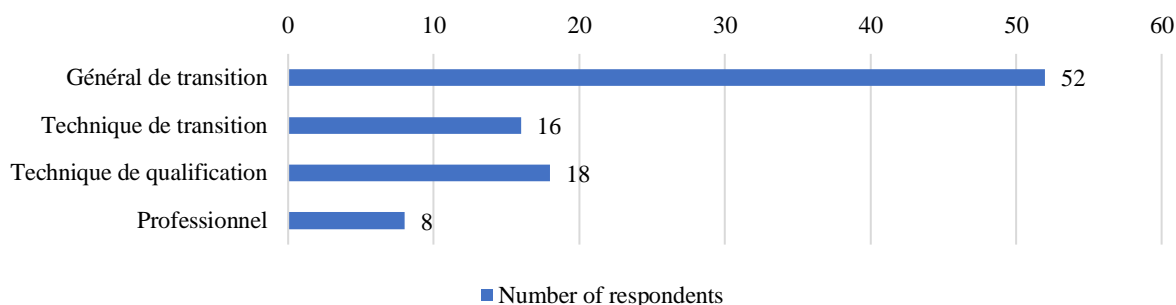


Overall, most of the teachers surveyed (57.9%; N = 57) teach in an upper secondary level, but 28 (48.1%) teach at a lower secondary level (see Figure 1). Very few respondents teach in tertiary education: 10.5% in UF 1-2 (which equals to the lower secondary level) and 1.8% in UF 3-12 (which equals to the upper secondary level). The reason why the percentages do not add up is because respondents could⁴⁹ select one or more options (this situation occurs multiple times further in this dissertation). In Q1, different combinations then come up: 26 participants teach in the upper secondary level only, 18 teach in the lower secondary level only, 7 teach in both levels, 3 teach in the lower secondary and lower tertiary education, 2 teach in the lower tertiary education level, and 1 teaches in the upper and lower tertiary education level.

⁴⁹ In the section “Analysing the survey”, past tenses are preferred to refer to how the respondents answered (e.g., answer modality), but present tenses are used to refer to the teachers’ practices or to the results in general.

Figure 2*Share of Respondents in the Secondary Education Subject Fields*

Q2) Si vous enseignez dans l'enseignement secondaire, dans quelle(s) filière(s) enseignez-vous ?



When it comes to the subject field (see Figure 2), almost all participants out secondary education teach in general education (96.3%), 29.6% of them teach in the technical education (technique de transition), 33.3% teach in the other technical education (technique de qualification) and 14.8% teach in vocational education. Once again, the participants could select multiple answers: 30 teachers work in general education only, 7 in general and technical (technique de qualification), 6 in all subject fields, 5 in general and technical (technique de transition), 4 in all but vocational, 1 in all but general and 1 in professional solely.

Figure 3*Years of Experience Among the Respondents*

Q4) Combien d'année(s) d'expérience avez-vous dans l'enseignement ?



Question 3 (“Quelle est votre langue maternelle ?”) and Q4 (“Combien d’année(s) d’expérience avez-vous dans l’enseignement ?”) are more straightforward as the respondents could only select one item. Regarding Q3, all but one participant are francophone natives.⁵⁰ Regarding Q4 (see Figure 3), a bit less than one third of the teachers (29.8%) have from 2 to 5

⁵⁰ That participant speaks Bosnian as a first language.

years of experience in teaching, 17.5% have been teaching for 6 to 10 years, 15.8% have an 11-to-15-year experience, 10.5% have 1 or less than 1 year of experience, 8.8% have been teaching for 16 to 20 years, 7% have from 21 to 25 years of practice, 5.3% have been teachers for 26 to 30 years, 3.5% have a 31-year or 35-year field experience, and 1.8% have more than 41 years of teaching practice. None of the respondents have between 36 and 40 years of teaching experience.

The typical respondent is then an upper secondary, general education, francophone teacher with 2 to 5 years of experience behind them. This average teacher also points to one shortcoming of this questionnaire and of questionnaires in general: the results that are introduced here may not represent the practice of every Belgian EFL teachers. Because there are not that many answers ($N = 57$), because they probably most teach in the province of Liège,⁵¹ because an important share of respondents may be traineeship supervisors, and because they mostly teach in the same level and subject field, the results collected cannot pretend to any generalisation over all of the Belgian EFL teachers.

6.4.2. Section 2: Goals and Norms

Section 2 looked at goals and norms in pronunciation teaching and the results are surprising in regards to the hypotheses (see 6.2.). As far as Q1 (“Quelle norme utilisez-vous majoritairement pour évaluer la prononciation anglaise des élèves ?”) is concerned, 27 teachers (47.4%) state that they mostly use BBC English or RP (that were both considered as synonyms in the Google Forms) when they evaluate pronunciation, 27 others (47.4%) claim they do not use any norm when evaluating their pupils’ pronunciation, and 3 (5.3%) say they use GA.

One may be perplexed as to how a teacher does not refer to a particular norm to assess a pupil’s pronunciation abilities, but Q2 (“Quel but voulez-vous atteindre au niveau de la prononciation anglaise des élèves au terme de l’enseignement secondaire/de promotion sociale ?”) may provide hints as to what such a teacher refers to instead. In terms of goals pursued at the end of secondary or further education, a majority of participants (63.2%, $n = 36$) indicate they aim for intelligible pronunciation, a minority of respondents (35.1%, $n = 20$) report they strive for a pronunciation without a foreign accent, while 1 respondent (the remaining 1.8%)

⁵¹ Thirty-five headmasters from schools in Liège were contacted, all of my private messages were sent to teacher from that province, and Mrs Van Hoof sent the survey to traineeship supervisors who had worked with the university of Liège, hence that issue with representativeness. However, eight schools from the other francophone parts of Belgium were reached out to, and some headmasters even positively replied to my request (i.e., sharing the survey).

says they want their pupils to achieve native-like pronunciation. This data is in line with what surveys on teachers' reported practices put forward (Couper, 2017; Henderson et al., 2012; Timmis, 2002) and especially with what authors plead for, that is, the intelligibility paradigm (Couper, 2021; Diana, 2010; Galante & Piccardo, 2022; Mompean & Fouz-González, 2021).

6.4.3. Section 3: Reasons, Beliefs, Opinions and Training in Pronunciation

The results of the first question of Section 3 (Q3) are presented in Table 3. The results are discussed and analysed in groups, if they have the same theme (e.g., age of the learner).

Table 3

Percentages of Agreements With Statements About Pronunciation Teaching
Q3) Veuillez indiquer votre degré d'accord avec les affirmations suivantes.

| Numbered Item | Pas du tout d'accord | | Pas d'accord | | D'accord | | Tout à fait d'accord | |
|---|----------------------|------|--------------|------|----------|------|----------------------|------|
| | n | % | n | % | n | % | n | % |
| 1. J'aime enseigner la prononciation anglaise. | 0 | 0 | 3 | 5.3 | 35 | 61.4 | 19 | 33.3 |
| 2. La prononciation est importante en anglais. | 0 | 0 | 0 | 0 | 22 | 38.6 | 35 | 61.4 |
| 3. Un natif accorde de l'importance à la prononciation anglaise du locuteur non-natif avec lequel il parle. | 2 | 3.5 | 14 | 24.6 | 32 | 56.1 | 9 | 15.8 |
| 4. Enseigner la prononciation anglaise est efficace et améliore la prononciation de l'élève. | 0 | 0 | 6 | 10.5 | 35 | 61.4 | 16 | 28.1 |
| 5. Enseigner la prononciation anglaise peut aider à corriger les formes fossilisées. | 0 | 0 | 6 | 10.5 | 42 | 73.7 | 9 | 15.8 |
| 6. Les élèves de 12 à 15 ans sont trop jeunes pour apprendre la prononciation anglaise. | 40 | 70.2 | 16 | 28.1 | 1 | 1.8 | 0 | 0 |
| 7. Les élèves de 15 à 18 ans sont trop jeunes pour apprendre la prononciation anglaise. | 47 | 82.5 | 10 | 17.5 | 0 | 0 | 0 | 0 |
| 8. Les élèves de plus de 18 ans sont trop vieux pour apprendre la prononciation anglaise. | 40 | 70.2 | 15 | 26.3 | 1 | 1.8 | 1 | 1.8 |
| 9. Les élèves de plus de 12 ans sont trop vieux pour apprendre la prononciation anglaise. | 42 | 73.7 | 14 | 24.6 | 0 | 0 | 1 | 1.8 |
| 10. Seul un natif peut enseigner la prononciation anglaise. | 29 | 50.9 | 24 | 42.1 | 3 | 5.3 | 1 | 1.8 |

| Numbered Item | Pas du tout d'accord | | Pas d'accord | | D'accord | | Tout à fait d'accord | |
|--|----------------------|------|--------------|------|----------|------|----------------------|------|
| | n | % | n | % | n | % | n | % |
| 11. Avoir une prononciation anglaise correcte, sans avoir de connaissances sur la prononciation anglaise, suffit pour faire acquérir une bonne prononciation aux élèves. | 10 | 17.5 | 28 | 49.1 | 17 | 29.8 | 2 | 3.5 |
| 12. Je me sens préparé à enseigner la prononciation anglaise par mes divers séjours à l'étranger. | 4 | 7 | 20 | 35.1 | 28 | 49.1 | 5 | 8.8 |
| 13. Je me sens préparé à enseigner la prononciation anglaise par ma formation initiale en langue en haute école/à l'université. | 2 | 3.5 | 9 | 15.8 | 35 | 61.4 | 11 | 19.3 |
| 14. Je me sens préparé à enseigner la prononciation anglaise par ma formation initiale en didactique reçue en haute école/à l'université. | 9 | 15.8 | 17 | 29.8 | 25 | 43.9 | 6 | 10.5 |
| 15. Je me sens préparé à enseigner la prononciation anglaise par ma formation initiale en littérature reçue à l'université. | 19 | 33.3 | 18 | 31.6 | 19 | 33.3 | 1 | 1.8 |
| 16. Je me sens préparé à enseigner la prononciation anglaise par ma formation en secondaire (pas par ma formation dans l'enseignement supérieur). | 24 | 42.1 | 21 | 36.8 | 11 | 19.3 | 1 | 1.8 |
| 17. Je suis satisfait de ce que j'ai appris sur les concepts théoriques relatifs à la prononciation anglaise, dans ma formation initiale en langue et/ou en linguistique. | 5 | 8.8 | 14 | 24.6 | 28 | 49.1 | 10 | 17.5 |
| 18. Je suis satisfait de ce que j'ai appris sur les techniques et procédés relatifs à l'enseignement de la prononciation anglaise, dans ma formation initiale en didactique. | 9 | 15.8 | 20 | 35.1 | 23 | 40.4 | 5 | 8.8 |
| 19. Mes élèves sont majoritairement motivés lorsque j'enseigne la prononciation anglaise. | 5 | 8.8 | 21 | 36.8 | 29 | 50.9 | 2 | 3.5 |
| 20. Une exposition à un input anglais oral correct en quantité suffisante est indispensable pour que les élèves aient une bonne prononciation anglaise. | 0 | 0 | 5 | 8.8 | 25 | 43.9 | 27 | 47.4 |
| 21. Un enseignement théorique de la prononciation anglaise est indispensable pour que les élèves aient une bonne prononciation. | 8 | 14 | 22 | 36.6 | 23 | 40.4 | 4 | 7 |

| Numbered Item | Pas du tout d'accord | | Pas d'accord | | D'accord | | Tout à fait d'accord | |
|---|----------------------|------|--------------|------|----------|------|----------------------|------|
| | n | % | n | % | n | % | n | % |
| 22. Un enseignement pratique de la prononciation anglaise (divers exercices) est indispensable pour que les élèves aient une bonne prononciation. | 0 | 0 | 3 | 5.3 | 29 | 50.9 | 25 | 43.9 |
| 23. Les dictionnaires électroniques fournissant une version sonore de la prononciation (Word Reference ou Cambridge Dictionary) ont rendu l'enseignement de la prononciation anglaise obsolète. | 30 | 52.6 | 22 | 38.6 | 4 | 7 | 1 | 1.8 |

6.4.3.1. General Reasons for Focusing on Pronunciation. A first look at the results may indicate reasons why teachers focus (or not) on pronunciation. In general, the teachers surveyed seem to like teaching pronunciation (94.7%, n = 54) (Item 1), and seem to believe in its efficiency (89.5%, n = 51) (Item 4), even when it comes to improving fossilised forms (89.5%, n = 51) (Item 5), which is actually attested by research (Derwing & Munro, 2014), and pronunciation teaching is assumed to still be relevant, in spite of electronic dictionaries providing audio files (91.2%, n = 52) (Item 23). The instructors then enjoy teaching that subject, and their pupils are said to be mostly motivated (54.4%, n = 31), but it is not so for 45.6% (n = 26) of the respondents (Item 19).

They all find it an important component of the English language (100%, n = 57) (Item 2), but, if everyone values it, more than one fourth of the respondents (28.1%, n = 16) do not think that a NS values the English pronunciation of the NNS to whom they are talking (Item 3). Although there does not appear to be any data available on pronunciation tolerance depending on the L1, some of the researchers' conclusions may indeed imply NSs are more tolerant towards non-native pronunciation than NNSs are. It has been demonstrated that natives rely more on the context than on the actual sounds (which is what non-natives do) to decode an utterance (Jenkins, 2002, p. 89), showing pronunciation mistakes do not always impede the understanding of a NS. Research also highlights the prestige natives grant some accents (Beebe & Giles, 1984; Derwing & Munro, 2009). Lastly, Timmis, (2002, p. 243) noticed in her questionnaire that there are more NS teacher who want their learners to achieve accented intelligibility than NNS teacher, pointing to a greater accent tolerance from NSs.

6.4.3.2. Learners' Age. As far as the learner's age is concerned, the overwhelming majority of respondents (98.2%, $n = 56$ for Item 6; 100%, $n = 57$ for Item 7) have the same opinions, that is, pupils in lower secondary (from 12 to 15 years old) and in upper secondary education (from 15 to 18 years old) are not too young to learn English pronunciation (Items 6 and 7). In addition, almost all of the participants (96.5%, $n = 55$ for Item 8; 98.2%, $n = 56$ for Item 9) think that 12- and 18-year-olds are not too old to learn pronunciation (Items 8 and 9). In other words, there does not seem to exist, in the participants' minds, a critical period after which learning English pronunciation becomes useless. Research stresses this as well: age does not play a major role in acquiring intelligible pronunciation, but only comes into play if one wants to achieve native-like pronunciation (Ioup, 2008).

6.4.3.3. Training. The respondents were asked on the kind of training they received, and especially on how prepared they felt to teach pronunciation, and on how satisfied they are with what they learned after high school. Most (66.6%, $n = 38$) agree that they are content with what they learned about pronunciation theory, which means that 33.3% ($n = 19$) disagree or totally disagree (Item 17). The opinions are less clear-cut when it comes to training in pronunciation methodology: 49.2% of the practitioners ($n = 28$) agree that they are content with what they learned about pronunciation teaching in language teaching methodology, while 50.9% ($n = 29$) disagree or totally disagree (Item 18). These numbers can be explained by the fact that some universities offer one general methodology class only, like it is the case with the university of Liège (Université de Liège, 2023), opposed to some universities which offer one methodology class per language, like it is the case with Université Libre de Bruxelles (Université Libre de Bruxelles, 2022) and with Université catholique de Louvain (Université catholique de Louvain, 2023).

These numbers are reflected elsewhere, as 54.4% of the teachers surveyed ($n = 31$) agree that they feel prepared to teach pronunciation thanks to their language teaching methodology training, whereas 45.6% ($n = 26$) disagree or totally disagree (Item 14). English language classes (see above) seem to score better as to teaching preparation: 80.7% ($n = 46$) feel these classes prepared them well enough, but 19.3% ($n = 11$) do not feel they did (Item 13). Nevertheless, literature classes do not score as much, since a bit less than two thirds of the participants (64.9%, $n = 37$) disagree that they prepared them to teach pronunciation, which still means that a bit more than one third of the participants (35.1%, $n = 20$) think that literature classes did prepare them to teach pronunciation (Item 15). A majority of respondents (78.9%, $n = 45$) do not think that secondary education got them ready to teach pronunciation, but this is

not true for 21.1% (n = 12) of them (Item 16). On the question of the impact of staying abroad, the panel appears to be divided, but there is a slight tendency towards a positive influence: 57.9% (n = 33) claim they do feel prepared to teach pronunciation thanks to their stays abroad, while 42.1% (n = 24) claim that they do not (Item 12).

6.4.3.4. Natives and Input. As to who can teach pronunciation and the way it should be dealt with, the responses suggest that teachers do not think only a NS is able to teach pronunciation, but some (7.1%, n = 4) think it is the case (Item 10). These opinions also come up in Item 11: two thirds of the respondents (66.7%, n = 38) do not think that pronouncing English correctly without theoretical background is enough to lead to correct pronunciation acquisition (Item 11). Yet, one third of the respondents (33.3%, n = 19) agree or totally agree that input is enough. Those respondents have different opinions than researchers, who put forward that sheer input is not sufficient to improve pronunciation (Iverson et al., 2012; Levis et al., 2016; Saito & Lyster, 2012).

However, the results regarding Item 11 do not entail that sufficient, correct, oral input is of secondary importance to ensure correct pronunciation, for an overwhelming majority (91.2%, n = 52) agrees that such input is needed (Item 20). Input then seems to make up one needed facet of pronunciation teaching, and so does practice as 94.7% (n = 54) believe that practice is indispensable (Item 22), but the importance of theory is much discussed and does not seem to be really needed: 47.4% (n = 27) reckon it is indispensable to ensure correct pronunciation, while 50.6% (n = 30) disagree that it is (Item 21).

These results are more or less in line with what a few researchers have concluded. Sheer input, as explained above, is not enough to improve one's pronunciation (Iverson et al., 2012; Levis et al., 2016; Saito & Lyster, 2012), but remains important in helping pupils producing contrasts they may not have in their L1 (Simon et al., 2014, 2016). Then, bringing the learners' attention to sounds, through theory for example, is linked to enhanced comprehensibility (Venkatagiri & Levis, 2007), and is overall the first step in acquisition (Schmidt, 2001, pp. 26, 29–31; Schmidt, 1990, p. 149; VanPatten, 2002, p. 108). In other words, a few teachers, when contrasted to research, appear to value input a bit too much and appear not to see the added value of pronunciation theory.

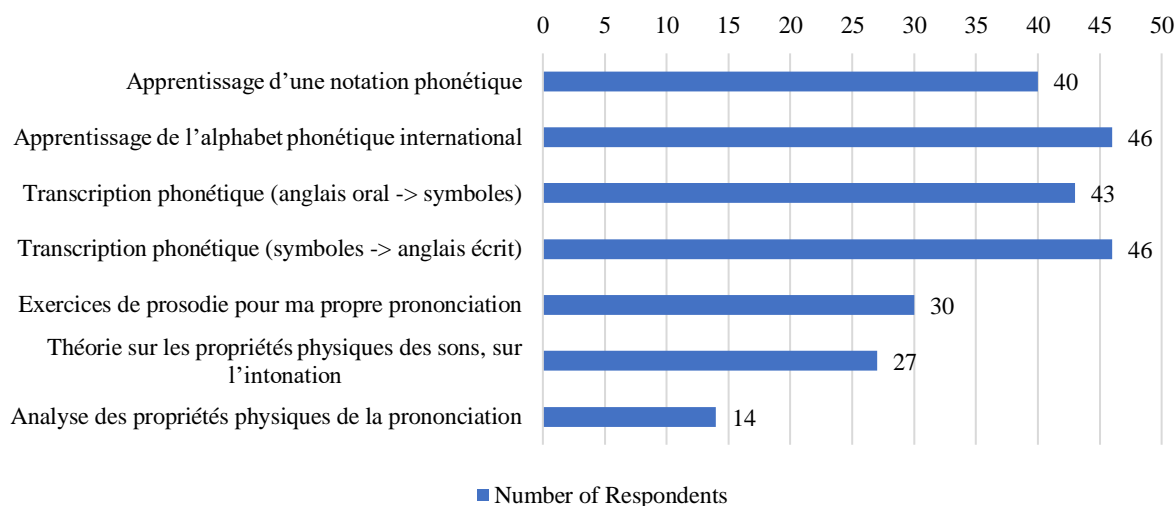
6.4.3.5. Activities During Teacher Training. The results on how satisfied teachers are with their training strike one as mixed: some teachers are happy with what they learned in general English classes, and others are dissatisfied with their training in pronunciation

methodology (see Item 13 and Item 14). Question 4 and Q5 give insights into the activities both sorts of training involved. Question 4 is presented in Figure 4.

Figure 4

Linguistic Pronunciation Activities Done During Teacher Training

Q4) Durant votre formation initiale en langue et/ou en linguistique pour devenir professeur, quelle(s) activité(s) liée(s) à la prononciation anglaise avez-vous effectuée(s) ?



Two activities come up as most common in language/linguistic training: learning IPA (80.7%) and transcribing phonetic symbols into English words (80.7%). Not as frequent but still so is another type of phonetic transcription, that is, from oral English input to phonetic symbols (75.4%). The last quite usual activity is learning a phonetic notation (70.2%); what phonetic notation involves was not detailed, and may thus refer to various kinds of phonetic notations (e.g., ToBI, keywords). Then, there is even a chance that some respondents selected both the item regarding IPA and the one on phonetic notations, but that, to them, they meant the same. The last activity a small majority of participant (52.6%) say they did is exercises on prosody or suprasegmentals. A minority (47.4%) say they learned theory on the physical properties of segments and of intonation.⁵² Finally, the least common activity is analysis of these physical properties (24.6%). The precise results are quite varied as to who did what, as, for example, some respondents selected as few as one exercise (e.g., learning IPA, or transcribing symbols to written English).

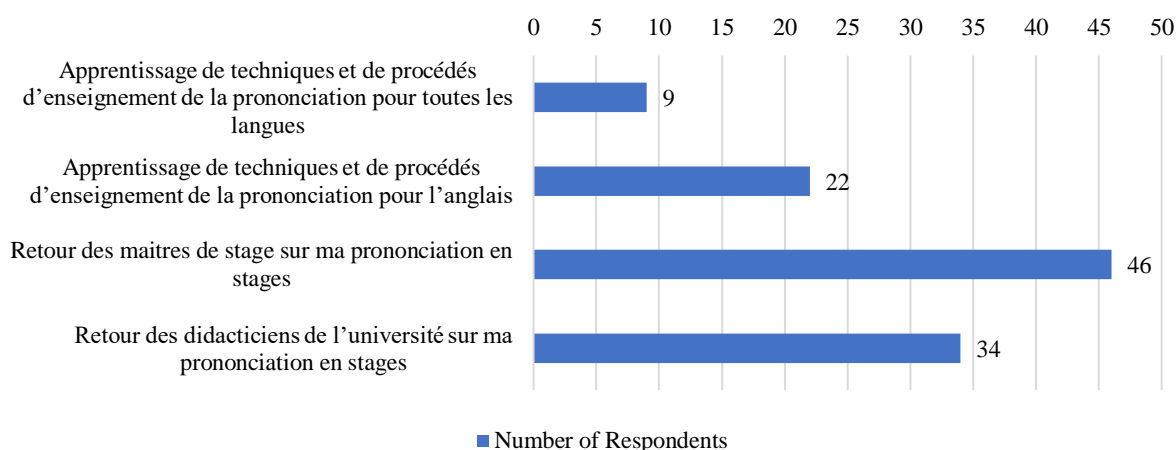
⁵² In Q4, “suprasegmentals” or “prosody” should have been used instead of “intonation”, since suprasegmentals include intonation, but the reverse is not true. One may still argue that “intonation” remains a clearer term to teachers.

As far as language teaching methodology is concerned, examining Q5 reveals that one activity was selected by a large majority of participants. The results are presented in Figure 5.

Figure 5

Pronunciation Activities Done in Language Teaching Methodology

Q5) Durant votre formation initiale en didactique pour devenir professeur, quelle(s) activité(s) liée(s) à la prononciation avez-vous effectuée(s) ?



Clearly, the data suggest that one of the only quite common methodology activity linked to pronunciation is comments from trainee supervisors on pronunciation (80.7%). More than half of the respondents (59.6%) say their own university teachers⁵³ commented on their pronunciation during the traineeships. A minority of the respondents (38.6%) say they learned pronunciation teaching techniques specific to English, whereas 15.8% say they learned such techniques for all languages (see 6.4.3.3. for comments on universities and English classes).

Question 6 (“Dans le cadre de la formation continue, avez-vous participé à des journées pédagogiques sur l’enseignement de la prononciation anglaise ?”) asked whether the respondents had ever taken part in pronunciation teaching training courses during in-service training and all said they had not, in spite of a clear demand, since 68.4% of the participants (n = 39) say they seek such courses (Q7, “Êtes-vous demandeur de journées pédagogiques sur l’enseignement de la prononciation anglaise ?”). This demand matches what other surveys found out, that is, teachers are willing to spend more time learning on pronunciation (teaching) (Couper, 2017; Foote et al., 2012), but the same surveys indicate that continuous learning did provide instructors with the missing information.

⁵³ In Q5, the last item should have included “didacticiens et professeurs de langues” to cater to every respondent, that is, those who went to university and those who went to college.

The last question of Section 3 was about when one should start teaching pronunciation. A clear tendency arose out of Q8 (“Quand pensez-vous qu’il faut commencer à enseigner la prononciation anglaise dans le cours de langue anglaise 1 ?”): most participants (66.7%, $n = 38$) reckon one should start early, that is, in the fifth year of primary education. A bit more than one fourth (26.3%, $n = 15$) think one ought to begin in the first year of secondary education, and few (7%, $n = 4$) believe one should commence in the second stage of secondary education. The final stage of secondary education was not selected once.

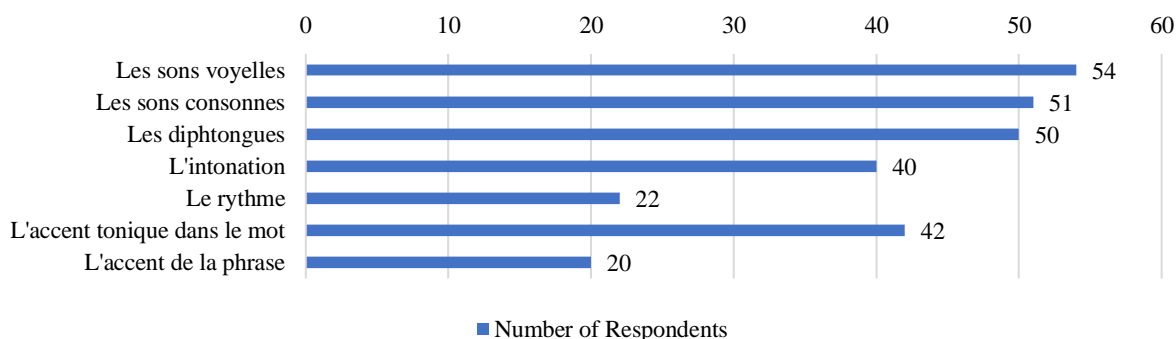
6.4.4. Section 4: Contents

Section 4 started with Q9 (“Quel aspect de la prononciation anglaise travaillez-vous le plus en classe ?”) and the answers are unanimous. In class, every teacher surveyed focuses more on practice than on theory and this matches the greater importance they give practice over theory (see 6.3.2.1.). More interesting is which pronunciation elements teachers most focus on. This was looked at through Q10, Q11 and Q12 (see Figure 6, Table 4 and Table 5).

Figure 6

Pronunciation Element Focused on in EFL Classes

Q10) Quel(s) élément(s) enseignez-vous en prononciation anglaise ?



Overall, the data suggest that segments (i.e., vowel sounds, consonant sounds and diphtongs) are what most teachers focus on. When looking at all the individual answers, only one respondent did not select either vowel sounds, consonant sounds or diphtongs (they indicate that they teach word stress only). Yet, this does not mean that suprasegmentals are never seen in class; as the results show, they are all addressed in varying degrees. The most taught suprasegmental is word stress (73.7%), followed closely by intonation (70.2%). A minority of respondents (38.6%) indicate that they teach rhythm and an even smaller amount of participants (35.1%) state they teach sentence stress. A deeper look at the data shows that 21.1% of the surveyed ($n = 12$) selected all options; other large tendencies include teaching vowel, consonant

sounds, and diphthongs, with either intonation only (12.3%, $n = 7$), with lexical stress only (10.5%, $n = 6$), or with both intonation and lexical stress (14%, $n = 8$).

Question 11 provided more details as to what teachers find of greatest importance. As mentioned in the methodology (see 6.3.2.), Q11 is peculiar with regard to its modalities: the respondents had to select three pronunciation elements and rank them in terms of how important they are in their class (see Table 4).

Table 4

Importance of Pronunciation Elements in EFL Classes

Q11) Veuillez sélectionner un chiffre en fonction de l'importance relative que vous accordez, en tant qu'enseignant, à chacun des éléments suivants dans votre cours d'anglais (1 = le moins important pour moi ; 7 le plus important pour moi). Les sept chiffres doivent être utilisés, et chaque élément doit avoir un chiffre différent.

| Item | Relative Importance | | | | | | |
|------------------|---------------------|----|----|----|----|----|----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Sons voyelles | 11 | 0 | 8 | 2 | 9 | 12 | 15 |
| Sons consonnes | 3 | 15 | 3 | 11 | 8 | 12 | 5 |
| Diphthongues | 0 | 2 | 12 | 7 | 15 | 13 | 8 |
| Intonation | 0 | 2 | 19 | 16 | 5 | 10 | 5 |
| Rythme | 7 | 21 | 9 | 7 | 5 | 5 | 3 |
| Accent tonique | 6 | 7 | 3 | 9 | 13 | 2 | 17 |
| Accent de phrase | 30 | 10 | 3 | 5 | 2 | 3 | 4 |

The chosen way to analyse Table 4 is to add the values from the first and second columns, and from the sixth and seventh columns. The three items that have the highest number in each category (i.e., first and second columns, sixth and seventh columns) can then be considered as the least and as the most important items. Columns 3, 4 and 5 are then not taken into account because the results for these columns may be subject to error of central tendency (see 6.3.3.).

With this method, the three least important pronunciation elements appear to be: sentence stress (70.2%, $n = 40$), rhythm (49.1%, $n = 28$) and consonant sounds (31.6%, $n = 18$). Sentence stress seems to be the undisputed least important element as 30 teachers put it at the bottom of the scale, which is the highest number any item received. In addition, the three most important items appear to be: vowel sounds (47.4%, $n = 27$), diphthongs (36.8%, $n = 21$) and lexical stress (33.3%, $n = 19$). Despite being third among the three most important elements, lexical stress received the most votes for the top of the scale (two more than vowel sounds and seven more than diphthongs); the importance teachers give lexical stress corresponds to the

importance lexical stress has according to the researchers: listeners heavily rely on word stress to understand one's speech (Hahn, 2004; Zielinski, 2008).

Yet, two other items closely follow lexical stress in terms of importance: consonant sounds (29.8%, $n = 17$) and intonation (26.3%, $n = 15$). This shows that consonant sounds are given variable levels of important, as 18 teachers and 17 others consider them of either low importance (see Columns 1 and 2) or of rather high importance (see Columns 6 and 7).

Question 12 pertained to the same pronunciation items, but asked the participants to take three of them and rank them in terms of how problematic they are for the pupils. The results are presented in Table 5.

Table 5

Level of Problems Pronunciation Elements May Pose

Q12) Quels éléments posent le plus de problèmes à la majorité de vos élèves ? Veuillez en sélectionner 3 en fonction du niveau de problème posé pour vos élèves (1 = pose des problèmes, mais moins que le 2 ; 2 = pose des problèmes mais moins que le 3 ; 3 = pose le plus de problèmes).

| Item | Level of Problem | | | | | |
|------------------|------------------|------|----|------|----|------|
| | 1 | | 2 | | 3 | |
| | n | % | n | % | n | % |
| Sons voyelles | 13 | 22.8 | 11 | 19.3 | 9 | 15.8 |
| Sons consonnes | 11 | 19.3 | 4 | 7 | 6 | 10.5 |
| Diphthongues | 15 | 26.3 | 13 | 22.8 | 9 | 15.8 |
| Intonation | 6 | 10.5 | 7 | 12.3 | 5 | 8.8 |
| Rythme | 5 | 8.8 | 8 | 14 | 5 | 8.8 |
| Accent de mot | 6 | 10.5 | 8 | 14 | 20 | 35.1 |
| Accent de phrase | 1 | 1.8 | 6 | 10.5 | 3 | 5.3 |

To do away with error of central tendency (see 6.3.3.), exclusively the two ends of the scale are analysed. The most problematic element (see Column 3) is by far lexical stress, as it received more than double the votes of any other feature in the third column. On the other hand, diphthongs appear to be ranked first in the first level of difficulty, closely followed by vowel and consonant sounds. Segments thus appear to be problematic for pupils: in total, 68.4% of the respondents ($n = 39$) indicate that segments are somewhat difficult (see Column 1). Besides, 24 teachers (42.1%) report segments are the most problematical elements for their pupils. When comparing this data to what researchers found, stress is indeed considered to be problematical for francophone learners (Dupoux et al., 1997; Frost, 2011; Walter, 2001, p. 200), and so are

some segments (Walter, 2001). In others words, the difficulties teachers report match the ones reported by researchers.

Question 13 resembles Q12 in terms of answer modality, so it will be analysed in a similar manner (see Table 6). For Q13, the participants had to select three criteria that help them select what they teach with regard to pronunciation. Just like in Q12, 1 equals to the least important of the three and 3 to the most important. After rereading Q13 and its guideline, the question and more precisely what 1 and 2 represent seem to suffer from a lack of details. Contrary to what is done with Q12, the scale is not as thoroughly detailed, resulting in unclear definitions. Indeed, the intended meaning of 1 is the least important criterion among three important criteria, but it could have been interpreted as the least important criterion out of the proposed items.⁵⁴ Therefore, the first level of importance, as well as the second for both clarity and central tendency reasons, are not analysed here.

Table 6

Importance of Criteria to Select Pronunciation Elements to Teach

Q13) Sur la base de quel(s) critère(s) sélectionnez-vous les éléments de prononciation anglaise que vous enseignez ? Veuillez en sélectionner 3 en fonction de leur importance (1 = le moins important ; 3 = le plus important).

| Item | Importance Level | | | | | |
|---|------------------|------|----|------|----|------|
| | 1 | | 2 | | 3 | |
| | n | % | n | % | n | % |
| Une liste d'erreurs fréquentes commises par mes élèves | 9 | 15.8 | 10 | 17.5 | 30 | 52.6 |
| Mon intuition de ce qui est compliqué pour les élèves francophones | 16 | 28.1 | 24 | 42.1 | 7 | 12.3 |
| Des éléments identifiés par des ouvrages de ressources (comme <i>Pronunciation in Use</i>) comme compliqués pour les élèves francophones | 13 | 22.8 | 4 | 7 | 9 | 15.8 |
| Des éléments identifiés par la recherche comme compliqués pour les élèves francophones | 3 | 5.3 | 6 | 10.5 | 2 | 3.5 |
| Le concept de charge fonctionnelle | 2 | 3.5 | 2 | 3.5 | 3 | 5.3 |
| Des éléments identifiés par mon cours de didactique comme compliqués pour les élèves francophones | 2 | 3.5 | 4 | 7 | 1 | 1.8 |
| Mes propres difficultés en prononciation quand j'étais élève | 12 | 21.1 | 7 | 12.3 | 5 | 8.8 |

⁵⁴ To ensure clarity, Q13 should have been as detailed as Q12, and the guidelines should then have been: "1 = important, mais moins que le 2"; "2 = important, mais moins que le 3"; "3 = le plus important."

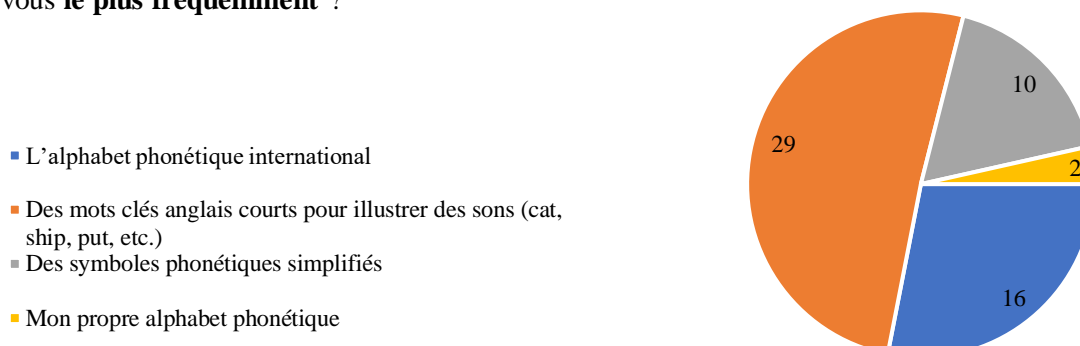
“Une liste d’erreurs fréquentes commises par mes élèves” is by far the most important criterion to select pronunciation elements. Two other criteria were selected by more than 10% of the respondents, that is, “Mon intuition de ce qui est compliqué pour les élèves francophones” and “Des éléments identifiés par des ouvrages de ressources (comme *Pronunciation in Use*) comme compliqué pour les élèves francophones.” The first selection criterion (i.e., the list of frequent errors), corresponds to what literature advocates (Couper, 2021), but the one research appears to emphasise a lot, that is, functional load (Brown, 1988; Derwing & Munro, 2014; King, 1967; Munro & Derwing, 2006), does not appear to be often called upon by the panel.

The last two questions of Section 4 revolved around phonetic notations and IPA. Question 14 was more general and asked about the most frequently used method to teach pronunciation: the results are presented in the following pie chart (see Figure 7).

Figure 7

Method Used to Teach Pronunciation

Q14) Pour enseigner la prononciation anglaise, quel type de méthode utilisez-vous **le plus fréquemment** ?



The majority of participants (50.9%) claim they most often use short English words, such as “cat” or “ship” to teach pronunciation. IPA remains a relevant way to teach pronunciation as it is claimed to be often used by 28.1% of the teachers surveyed. Besides, IPA and keywords alike have proved their efficiency (Fouz-González & Mompean, 2021), and the alphabet proved it is well considered by students (Mompean & Lintunen, 2015). Finally, the rest of the panel states they either make use of simplified phonetic symbols (17.5%) or of their own phonetic alphabet (3.5%), whatever it may be.

The next question zoomed in on IPA specifically and confronted the respondents with several items. The different statements from Q15 and how many respondents (dis)agreed, and to what extent are presented in Table 7.

Table 7*Percentages of Agreements With Statements on IPA*

Q15) Veuillez indiquer votre degré d'accord avec les affirmations suivantes. Elles sont en rapport avec l'alphabet phonétique international (API) dans le cours d'anglais langue étrangère.

| Numbered Item | Pas du tout d'accord | | Pas d'accord | | D'accord | | Tout à fait d'accord | |
|---|----------------------|------|--------------|------|----------|------|----------------------|------|
| | n | % | n | % | n | % | n | % |
| 1. J'utilise l'API avec mes élèves. | 12 | 21.1 | 15 | 26.3 | 22 | 38.6 | 8 | 14 |
| 2. Je familiarise mes élèves à l'API. | 8 | 14 | 13 | 22.8 | 24 | 42.1 | 12 | 21.1 |
| 3. L'API est trop complexe pour mes élèves. | 4 | 7 | 23 | 40.4 | 23 | 40.4 | 7 | 12.3 |
| 4. L'API est trop complexe pour moi. | 35 | 61.4 | 16 | 28.1 | 4 | 7 | 2 | 3.5 |
| 5. J'ai été familiarisé avec l'API durant ma formation en secondaire en anglais. | 25 | 43.9 | 14 | 24.6 | 15 | 26.3 | 3 | 5.3 |
| 6. J'ai été familiarisé avec l'API durant ma formation en anglais en haute école/à l'université. | 5 | 8.8 | 2 | 3.5 | 15 | 26.3 | 35 | 61.4 |
| 7. J'ai le temps de voir l'API en classe avec mes élèves. | 20 | 35.1 | 23 | 40.4 | 12 | 21.1 | 2 | 3.5 |
| 8. J'estime que l'enseignement de l'API aux élèves est superflu car tous les dictionnaires en ligne proposent une version audio du mot recherché. | 16 | 28.1 | 28 | 49.1 | 11 | 19.3 | 2 | 3.5 |

After reviewing the numbers, it appears that most respondents (52.6%, $n = 30$) agree or totally agree that they use IPA in class with their pupils, so quite a few teachers (47.4%, $n = 27$) do not seem to use IPA in class (Item 1). Yet, if only a small majority uses IPA, a large majority (63.2%, $n = 36$) introduces IPA to their class (Item 2). Looking at literature and at how little IPA-based exercises are used in class (see Q16 in 6.4.4.), one may guess why teachers use or introduce IPA for: making sure feedback is precise (Fouz-González & Mompean, 2021; Mompean & Fouz-González, 2021), presenting pupils with means to express themselves (Fraser, 2010), or with means to learn on their own (Marks, 2011; Mompean & Fouz-González, 2021; Mompean & Lintunen, 2015).

Reasons that may explain why IPA is not used by all is the supposed complexity of IPA: 52.7% of the participants ($n = 30$) do think that IPA is too difficult for their pupils (Item 3). Yet, if there are more positive answers (i.e., [totally] agree) than negative ones (i.e., [totally] disagree) for Item 3, the same number of respondents (40.4%, $n = 23$) agree and disagree (40.4%, $n = 23$) that IPA is too complex for their classes (Item 3).

Another reason explaining why IPA is not taught by all is time constraints, as 75.5% of the instructors surveyed ($n = 43$) (totally) disagree that they have time to see IPA in class (Item 7). On that matter, authors (Bowen, 1972; Derwing, 2010; Field, 2005; Marks, 2011) encourage teachers to combine pronunciation (IPA in this case) with, among others, vocabulary lessons in order to solve timing problems (see 6.4.6.). Finally, online dictionaries that provide audio files do not appear to dissuade teachers from introducing IPA, since most (80.7%, $n = 46$) (totally) disagree that these resources turned IPA teaching useless (Item 8).

Turning to the teachers themselves and their relation to this type of phonetic notation, a great share of participants do not reckon it is too difficult for themselves (89.5%, $n = 51$) (Item 4), maybe because they got introduced to it during their secondary education (31.6%, $n = 18$) (Item 5), or because they learned about it after their secondary education (87.7%, $n = 50$) (Item 6). It indeed appears that pronunciation training in college or in university revolved around IPA for quite a few teachers (see 6.4.3.5.).

6.4.5. Section 5: Material and Activities

Section 5 took a deeper look at some precise activities used in teaching pronunciation. The first question of the section (Q16) asked the participants to rank three activities in terms of frequent use, with 1 being the least frequent and 3 the most frequent (see Table 8). After rereading the question and its guideline, there is a high chance that the participants understood the question differently: “1 = la moins fréquente” may have been interpreted as “an activity that is never used”, or as “an activity that is quite often used, but less so than 2.” This latter explanation was the one I intended, but I may have failed to put it clearly.⁵⁵ Because the meaning of 1 I wanted to put across and the respondents’ interpretation of 1 may be different, the first and second level of frequency are not analysed; besides what frequency 2 means partly depends on what 1 is (e.g., 2 is a more or less frequent activity, 2 is a frequent activity but less so than 3). Therefore, solely the third column is analysed.

⁵⁵ Question 16 can see its clarity improved in similar manner to Q13, since the meaning of 1 and 2 need to be detailed: “1 = fréquente, mais moins que la 2”; “2 = fréquente, mais moins que la 3”; “3 = la plus fréquente.”

Table 8*Frequent Pronunciation Activities in EFL Classes*

Q16) Quelle(s) activité(s) utilisez-vous pour enseigner la prononciation anglaise ? Veuillez en sélectionner 3 en fonction de leur fréquence d'utilisation (1 = la moins fréquente ; 3 = la plus fréquente).

| Item | Frequency Level | | | | | |
|---|-----------------|------|----|------|----|------|
| | 1 | | 2 | | 3 | |
| | n | % | n | % | n | % |
| Des répétitions en chœur | 16 | 28.1 | 2 | 3.5 | 3 | 5.3 |
| Exercices de discrimination | 2 | 3.5 | 7 | 12.3 | 6 | 10.5 |
| Activités d'expressions orales | 4 | 7 | 13 | 22.8 | 10 | 17.5 |
| Exercices d'imitation d'un modèle | 9 | 15.8 | 4 | 7 | 4 | 7 |
| Des transcriptions phonétiques (symboles -> mots écrits en anglais) | 2 | 3.5 | 2 | 3.5 | 3 | 5.3 |
| Des transcriptions phonétiques (mots écrits -> symboles phonétiques) | 1 | 1.8 | 0 | 0 | 1 | 1.8 |
| Des transcriptions (input oral -> mots écrits en anglais) | 0 | 0 | 3 | 5.3 | 0 | 0 |
| Clarification par l'enseignant d'un point de prononciation | 4 | 7 | 10 | 17.5 | 6 | 10.5 |
| Théâtre | 0 | 0 | 3 | 5.3 | 1 | 1.8 |
| Lecture à voix haute | 7 | 12.3 | 4 | 7 | 18 | 31.6 |
| Activité de répétition individuelle après un feedback du professeur | 4 | 7 | 6 | 10.5 | 4 | 7 |
| Virelangue (ex. Les chaussettes de l'archiduchesse sont-elles sèches ?) | 5 | 8.8 | 1 | 1.8 | 1 | 1.8 |
| Visualisation des sons et des accents via des ondes sonores | 2 | 3.5 | 0 | 0 | 0 | 0 |
| Exercices se basant sur les capacités physiques | 0 | 0 | 2 | 3.5 | 0 | 0 |

Looking at the third level of frequency, one activity appears to be quite often used: “Lecture à voix haute” (31.6%). Another common exercise is “Activités d'expressions orales” (17.5%), so are “Exercices de discrimination” (10.5%), and “Clarification par l'enseignant d'un point de prononciation” (10.5%). This data corresponds to previous surveys whereby minimal pairs, perception exercises, oral performances and aloud readings were found to be usual classroom practices (Foote et al., 2012, pp. 12–13; Henderson et al., 2015, p. 275).

Interestingly (see 6.5.2. for more details), although teachers say they use IPA and although they learnt about it in college or university, transcriptions are among the least frequently used activities. The perception side is preferred in any case: more often, the pupils have to decipher symbols to then write words or sentences down for example. In addition, in

spite of a stated preference for the practical side (see Q9 in 6.4.4.), explaining or clarifying a pronunciation point seems common practice.

Speaking of clarifying (assumed to be explicit), Q17 pertained to how explicit or implicit the instructors' approach to teaching pronunciation is (see Table 9).

Table 9

Explicit and Implicit Pronunciation Teaching

Q17) Veuillez indiquer votre degré d'accord avec les items suivants. Lorsque j'enseigne la prononciation anglaise, je l'enseigne principalement ...

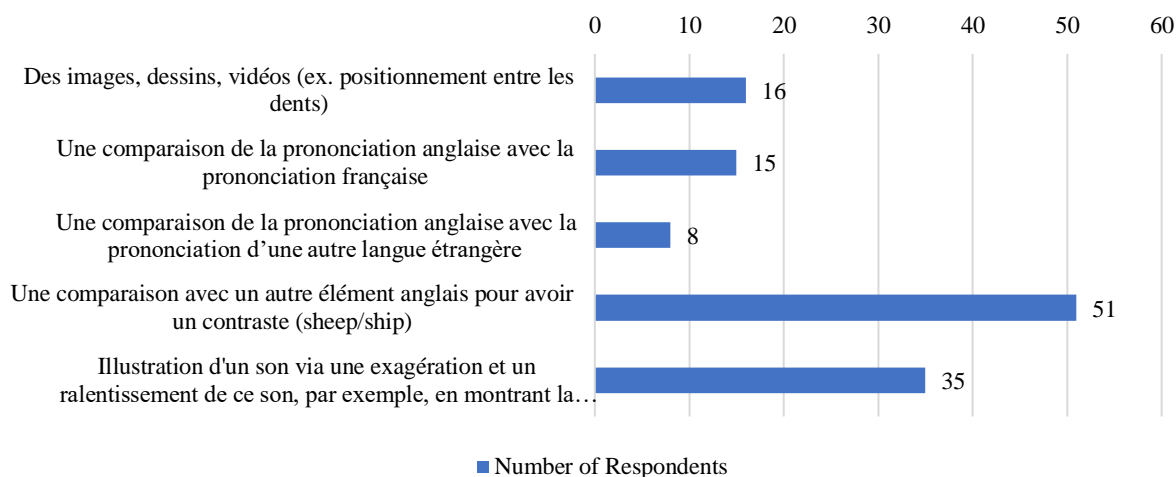
| Numbered Item | Pas du tout d'accord | | Pas d'accord | | D'accord | | Tout à fait d'accord | |
|--------------------------|----------------------|------|--------------|------|----------|------|----------------------|------|
| | n | % | n | % | n | % | n | % |
| 1. de manière explicite. | 2 | 3.5 | 7 | 12.3 | 29 | 50.9 | 19 | 33.3 |
| 2. de manière implicite. | 7 | 12.3 | 18 | 31.6 | 23 | 40.4 | 9 | 15.8 |

If the results seem to be quite clear for “de manière explicite” since most of the answers (86%, $n = 48$) are positive (i.e., “agree” or “totally agree”), it is less categorical for implicit teaching: 43.9% of the instructors ($n = 25$) (totally) disagree that they mainly teach pronunciation implicitly, while 54.4% ($n = 31$) (totally) agree that they do. Combining both sets of data, teachers appear to mix the approaches, but remain more explicit than implicit, and this approach does not, at first, match the most used activities (see 6.5.1. for further analyses). The teachers' practice then dovetail with the practice encouraged by some (Hu et al., 2013, p. 371; Venkatagiri & Levis, 2007, p. 273) who found out explicit theoretical knowledge is linked is beneficial to improved pronunciation (see 3.3.3. and 4.5.).

It could be argued that exercises make up the one part of teaching, with the previous necessary part being presenting the subject first, and this is what Q18 looked at (see Figure 8).

Figure 8*Activities Used to Introduce New Pronunciation Elements*

Q18) Lorsque vous **présentez** un nouvel élément de prononciation anglaise, à quel(s) procédé(s) avez-vous recours ?



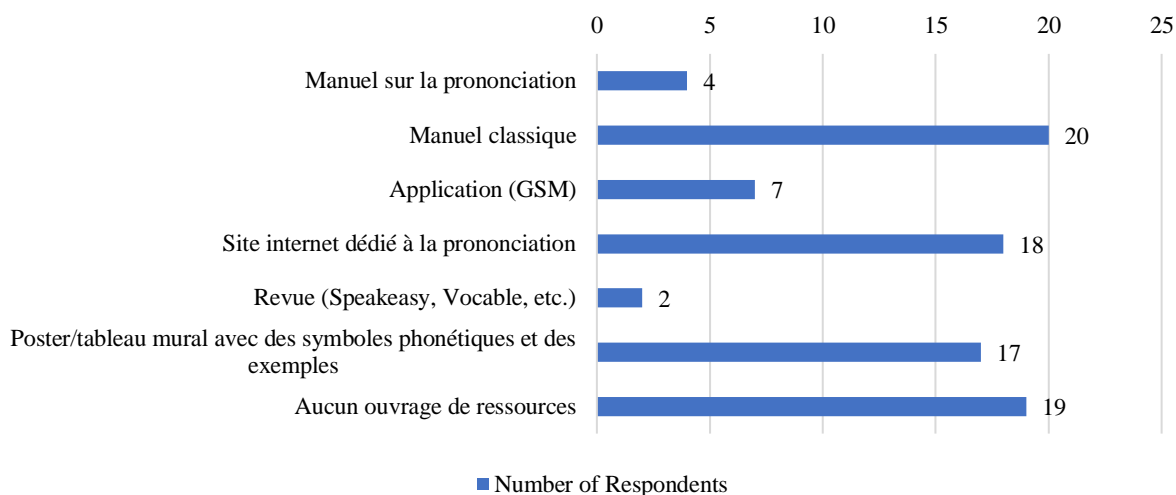
Two exercises appear to be quite common to introduce a new pronunciation element as more than 60% of the participants report they use them: “Une comparaison avec un autre élément anglais pour avoir un contraste (sheep/ship)” (89.5%) and “Illustration d’un son via une exagération et un ralentissement de ce son, par exemple, en montrant la position de la langue dans la production du son (three teeth)” (61.4%).

Reviewing the detailed results, that is, which combination got selected most, three combos come up repeatedly: “Une comparaison avec un autre élément anglais pour avoir un contraste (sheep/ship)” alone (24.6%, $n = 14$), the previous item with “Illustration d’un son via une exagération et un ralentissement de ce son ...” (22.8%, $n = 13$), and finally both of the above-mentioned elements along with “Des images, dessins, vidéos (ex. positionnement entre les dents)” (10.5%, $n = 6$). Any other processes association got chosen by less than 8.8% of the respondents (or less than five times) and the precise results are therefore not analysed any further. Eventually, comparing two English sounds is obviously a perception-based activity, and such exercises are strongly recommended by various authors (Couper, 2021; Derwing & Munro, 2014; Setter & Jenkins, 2005; Thomson, 2012), and in presenting a new pronunciation element through a comparison undoubtedly makes the learner aware, or notice the sound difference, thus teachers take into account the influential (VanPatten, 2002) “noticing hypothesis” (Schmidt, 2001, p. 26).

Question 19 questioned the participants about the type of resources they might employ to teach pronunciation features (see Figure 9).

Figure 9*Resources Used to Teach Pronunciation*

Q19) Quel(s) type(s) de manuel(s), d'ouvrage(s) de ressources et/ou de ressource(s) utilisez-vous pour enseigner la prononciation anglaise en classe ?



As can be seen with the graph, there is not one resource that a majority of participants claim to use, but three were selected by more than or by close to 30% of the participants: “Manuel classique” (35.1%), “Site internet dédié à la prononciation” (31.6%) (a technological mean endorsed by authors [Levis, 2007; Rogerson-Revell, 2021]), and “Poster/tableau mural ...” (29.8%). It thus looks like phonetic symbols are physically present in the classroom, even if they may not be taught (see 6.4.4.). Finally, quite a few respondents (33.3%) do not make use of any of the mentioned resources.

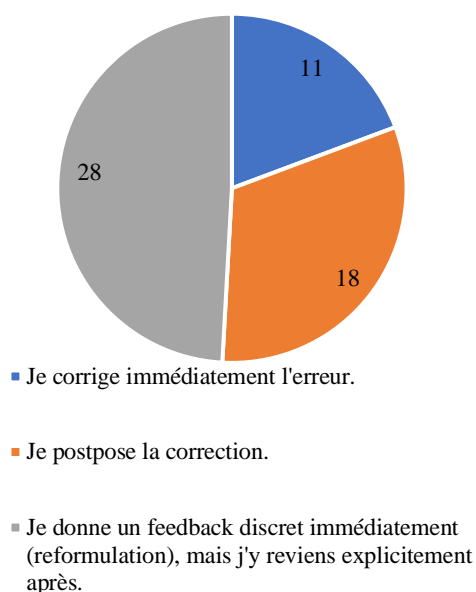
The instructors who had selected any of the options (except the last one), were asked to write the name of the resource they use (Q20, “Si vous utilisez un manuel, un ouvrage de ressource, ou une autre ressource, lequel/lesquelles utilisez-vous ?”). The ones cited more than once⁵⁶ are: (*New*) *English File* (n = 5), *Get Up* (n = 3), *Pronunciation in Use* (n = 3).

The next set of questions revolved around giving feedback in two specific classroom contexts: spontaneous speech acts and aloud reading. The first pair of questions (Q21 and Q22) looked at the moment of the feedback (see Figure 10 and Figure 11).

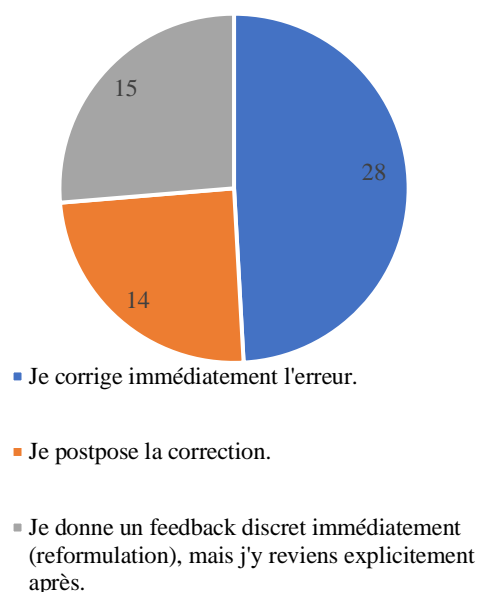
⁵⁶ The resources that were cited once only are: the online dictionary *Word Reference*, *Jelly 2* and its pronunciation exercises, *Vitaeducation.org*, *Choices*, *Gateway B1+*, a dictionary including pronunciation, *TTsdemo*, *NA*, *New Headway Advanced*, *New Inside Out Intermediate*, *Step Up*. *English File* was cited three times, whereas *New English File* was cited twice. *Get Up 6* was mentioned once.

Figure 10*Moment of Feedback During Spontaneous Speech Acts*

Q21) Lorsqu'un élève fait une erreur de prononciation durant une **intervention orale spontanée** en cours d'anglais langue étrangère (expression d'un avis personnel, par exemple), que faites-vous ?

**Figure 11***Moment of Feedback During Aloud Readings*

Q22) Lorsqu'un élève fait une erreur de prononciation durant une **lecture à voix haute** en cours d'anglais langue étrangère (d'un paragraphe d'un texte ou d'une consigne, par exemple), que faites-vous ?

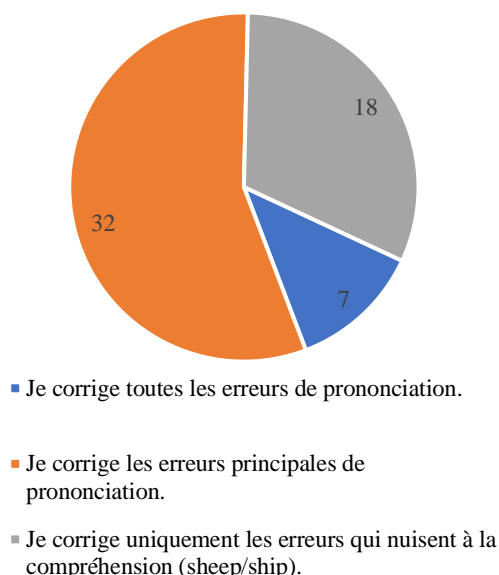


The results suggest one moment or type of feedback is common to both spontaneous speech acts and aloud readings: postponed feedback (31.6% for Q21; 24.6% for Q22). Yet, how immediate feedback is seems to differ substantially based on the activity because immediate correction appears to be unusual practice when a pupil is spontaneously speaking (19.3%), while immediate correction appears to be usual when a pupil is reading aloud (49.1%); this is in accordance with feedback habits in VTM (De Vriendt, 2000a, p. 251). What is more, discrete recasts (i.e., reformulation in the item) followed by explicit correction seem common during spontaneous speech (49.1%) but do not seem so common during aloud readings (26.3%). In other words, one practice (i.e., postponing feedback) seems frequent whatever the exercise, while there appear to exist preferences for two other practices (i.e., immediate correction and discrete recasts followed by explicit correction).

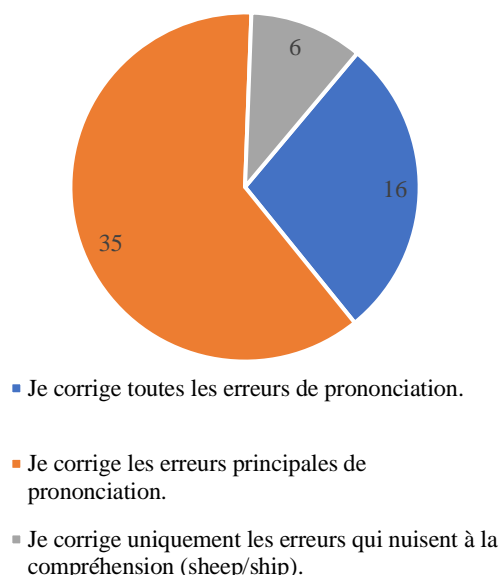
If how immediate feedback is varies depending on the context, teachers behave more similarly in terms of what they correct (Q23 [see Figure 12] and Q24 [see Figure 13]).

Figure 12*Mistakes Corrected During Spontaneous Speech Acts*

Q23) Lorsqu'un élève fait des erreurs de prononciation durant une **activité d'expression orale spontanée** au cours d'anglais langue étrangère, que faites-vous ?

**Figure 13***Mistakes Corrected During Aloud Readings*

Q24) Lorsqu'un élève fait des erreurs de prononciation durant une **lecture à voix haute** au cours d'anglais langue étrangère, que faites-vous ?



In both contexts (i.e., spontaneous speech acts and aloud readings), a majority of respondents (56.1% for Q23; 61.4% for Q24) state they correct the main pronunciation mistakes. Intelligibility mistakes are taken more into consideration during spontaneous speech (31.6%), than during aloud readings (10.5%). Only a few instructors (12.3%) correct every pronunciation mistake during speech acts, but 28.1% of the participants claim they do indeed focus on every mistake when a pupil is reading aloud.

Recasts and explicit correction seem to constitute important types of feedback at least in two contexts. Question 25 (see Table 10) looked at the frequency of other types of feedback to correct a pronunciation mistake (there was not any context detailed). In spite of defining six different feedbacks in the Google Forms (i.e., explicit correction, recasts, clarification requests, metalinguistic feedback, elicitation, repetition), only five sorts of feedback (plus an item “I do not correct the mistake”) were available in Q25: this is purely a mistake for I forgot to add “explicit correction.”

Table 10*Frequency of Feedback Types*

Q25) Lorsque vous corrigez une erreur de prononciation anglaise, que faites-vous ?

| Numbered Item | Jamais | | Parfois | | Souvent | | Toujours | |
|---|--------|------|---------|------|---------|------|----------|------|
| | n | % | n | % | n | % | n | % |
| 1. Demande de clarification | 5 | 8.8 | 24 | 42.1 | 24 | 42.1 | 4 | 7 |
| 2. Extraction de l'information | 8 | 14 | 22 | 38.6 | 24 | 42.1 | 3 | 5.3 |
| 3. Reformulation par le professeur | 0 | 0 | 2 | 3.5 | 31 | 54.4 | 24 | 42.1 |
| 4. Feedback métalinguistique | 11 | 19.3 | 19 | 33.3 | 25 | 43.9 | 2 | 3.5 |
| 5. Répétition par le professeur sur un ton indiquant une erreur | 12 | 21.1 | 8 | 14 | 27 | 47.4 | 10 | 17.5 |
| 6. Je ne corrige pas l'erreur. | 34 | 59.6 | 22 | 38.6 | 1 | 1.8 | 0 | 0 |

The data imply that teachers do correct pronunciation mistakes since almost every participant (98.2%, $n = 56$) says they never let a pronunciation mistake slip through the net (Item 6). Solely 1 respondent (1.8%) states they often do not correct a mistake. As far as the type of feedback is concerned, there does not seem to be a clear preference for any, since “souvent” was selected by most for every feedback. Yet, three pieces of feedback received more negative answers (i.e., either “jamais” or “sometimes”) than positive ones (i.e., “souvent” or “always”): clarification requests (50.9%, $n = 29$), elicitation (52.6%, $n = 30$), and metalinguistic feedback (52.6%, $n = 30$). Thus, it would mean that the others, which have received more positive reactions than negative ones, are preferred: the experimentally-attested effective (Saito & Lyster, 2012) recasts (96.5%, $n = 55$) and repetitions (64.9%, $n = 37$).

The last feedback-related piece of information that is of interest to this research is what feedback is on and Q26 examined just that (see Table 11).

Table 11*Focus of Feedback*

Q26) Lorsque vous faites un feedback sur la prononciation anglaise d'un élève, sur quel(s) élément(s) le faites-vous porter ?

| Numbered Item | Jamais | | Parfois | | Souvent | | Toujours | |
|-----------------------|--------|------|---------|------|---------|------|----------|------|
| | n | % | n | % | n | % | n | % |
| 1. Les sons voyelles | 0 | 0 | 16 | 28.1 | 27 | 47.4 | 14 | 24.6 |
| 2. Les sons consonnes | 3 | 5.3 | 19 | 33.3 | 22 | 38.6 | 13 | 22.8 |
| 3. Les diphtongues | 0 | 0 | 13 | 22.8 | 32 | 56.1 | 12 | 21.1 |
| 4. L'intonation | 4 | 7 | 19 | 33.3 | 27 | 47.4 | 7 | 12.3 |
| 5. Le rythme | 12 | 21.1 | 26 | 45.6 | 12 | 21.1 | 7 | 12.3 |
| 6. L'accent tonique | 7 | 12.3 | 12 | 21.1 | 24 | 42.1 | 14 | 24.6 |
| 7. L'accent de phrase | 20 | 35.1 | 24 | 42.1 | 10 | 17.5 | 3 | 5.3 |

Just like with the different kinds of feedback, the teachers surveyed do not seem to focus more on one particular pronunciation feature. However, some tendencies come up when analysing the results: both rhythm and sentence stress are not often subject to feedback as they received more negative answers than positive ones (66.7%, $n = 38$ for rhythm; 77.2%, $n = 44$ for sentence stress). Besides, these are the two elements that most respondents specify they sometimes (i.e., “Parfois”) give feedback on. Therefore, the other elements (i.e., vowel and consonant sounds, diphthongs, intonation, lexical stress) are often or always subject to feedback. Interestingly, more than one fifth of the respondents state their feedback is always on segments or on lexical stress (see column “Toujours” for Item 1, Item 2, Item 3 and Item 4). The focus of feedback also naturally matches what teachers claim to most address in class (see 6.4.4.).

One of the last questions of Section 5 (Q27) questioned the respondents about the use of native or non-native English speakers in class, through listening comprehensions (see Table 12).

Table 12

Frequency of Accents Used in Listening Comprehensions

Q27) Lorsque vous faites des compréhensions à l’audition en classe d’anglais langue étrangère, quel(s) accent(s) ont **majoritairement** les locuteurs ?

| Numbered Item | Jamais | | Parfois | | Souvent | | Toujours | |
|---|--------|------|---------|------|---------|------|----------|------|
| | n | % | n | % | n | % | n | % |
| 1. Un accent natif (anglais, américain, australien, etc.) | 0 | 0 | 1 | 1.8 | 27 | 47.4 | 29 | 50.9 |
| 2. Un accent non natif (français, espagnol, allemand, etc.) | 17 | 29.8 | 39 | 68.4 | 1 | 1.8 | 0 | 0 |

The use of native speakers in class appears to be quite common (98.2%, $n = 56$) for an overwhelming majority of respondents say they either often or always use native speakers in listening comprehensions; only 1 participants thus says they sometimes make their pupils listen to native accents. This does not entail that non-native accents are nowhere to be found in Belgian EFL classes: 1 teacher (1.8%) says they often make use of NNSs, 39 teachers (68.4%) indicate they sometimes let their pupils listen to NNSs, against 17 (29.8%) who say they never exploit NNSs in class. This exposure to NNSs and consequently to non-traditional varieties of English matches the recommendations of many scholars (Derwing, 2010; Jenkins, 2000; Low, 2021; Marks, 2011; Murphy, 2014).

The final questions of Section 5 referred to the integration of a pronunciation module into the classroom environment at two levels: the teaching sequence (Q28, see Table 13) and the more traditional features of English, like vocabulary or grammar (Q29, see Table 14).

Table 13

Frequency of Integration of Pronunciation Modules Into a Teaching Sequence

Q28) Comment les modules de prononciation sont-ils intégrés dans votre enseignement de l'anglais langue étrangère ?

| Numbered Item | Jamais | | Parfois | | Souvent | | Toujours | |
|---|--------|------|---------|------|---------|------|----------|------|
| | n | % | n | % | n | % | n | % |
| 1. C'est un module à part, déconnecté du reste des séquences (ex. une heure par mois sur un élément spécifique de la prononciation). | 35 | 61.4 | 18 | 31.6 | 2 | 3.5 | 2 | 3.5 |
| 2. C'est un module intégré dans une séquence didactique en fonction des besoins des élèves relatifs à la matière abordée dans la séquence (ex. prononciation du « ED » dans une séquence sur le past simple). | 1 | 1.8 | 12 | 21.1 | 23 | 40.4 | 21 | 36.8 |
| 3. C'est une séquence entière sur la prononciation. | 40 | 70.2 | 8 | 14 | 5 | 8.8 | 4 | 7 |

On the whole, 70.2% of the instructors surveyed declare that they never put up a whole sequence dedicated to pronunciation and 61.4% state that they never put up a pronunciation module, unrelated to previous or future sequences. Additionally, both of these options got more negative answers than positive ones: 93% (n = 53) of “Jamais” and “Sometimes” answers for “module à part, déconnecté du reste des séquences” and 84.2% (n = 48) for “séquence entière sur la prononciation.” The latter option thus appears to be more common than the former, but both remain rare. This could be linked to the material teachers claim to use (see Q19 in 6.4.5.): few teachers use a dedicated pronunciation textbook, so this may explain why few teachers create pronunciation-dedicated modules.

Clearly, the teachers' responses point to one preferred way of integrating pronunciation modules into a greater whole: “un module intégré dans une séquence didactique en fonction des besoins des élèves relatifs à la matière abordée dans la séquence.” For a great number of teachers, it is quite usual (77.2%, n = 44) that they integrate a pronunciation module into a larger sequence depending on the demanded needs, which is just what many researchers advise doing (Bowen, 1972; Derwing, 2010; Derwing & Munro, 2014; Galante & Thomson, 2017;

Gordon & Darcy, 2016; Kissling, 2013; Levis, 1999; Levis & Grant, 2003; Marks, 2011; Rasier, 2011; Taylor, 2006; Thomson, 2012).

These needs could refer to one of four linguistic elements (i.e., grammar, syntax, vocabulary, and language functions) and Q29 looked at that in detail (see Table 14).

Table 14

Frequency of Pronunciation Combined With Grammar, Lexis, Syntax and Language Functions

Q29) Avec quoi sont combinées les clarifications et applications de la prononciation anglaise dans votre enseignement ?

| Numbered Item | Jamais | | Parfois | | Souvent | | Toujours | |
|---|--------|------|---------|------|---------|------|----------|------|
| | n | % | n | % | n | % | n | % |
| 1. Avec des éléments grammaticaux (ex. prononciation des « ED » avec le past simple). | 1 | 1.8 | 9 | 15.8 | 37 | 64.9 | 10 | 17.5 |
| 2. Avec des éléments syntaxiques (ex. intonation des questions). | 7 | 12.3 | 25 | 43.9 | 22 | 38.6 | 3 | 5.3 |
| 3. Avec des éléments lexicaux (ex. prononciation des mots de vocabulaire). | 0 | 0 | 8 | 14 | 33 | 57.9 | 16 | 28.1 |
| 4. Avec les fonctions langagières (ex. intonation pour marquer un doute). | 12 | 21.1 | 22 | 38.6 | 19 | 33.3 | 4 | 7 |

When analysing in terms of positive and negative responses, there seem to exist three tendencies. Most instructors appear more likely to combine pronunciation exercises and explanations with grammar (82.5%, $n = 47$), or with lexis (86%, $n = 49$). Moreover, the number of answers in the “Jamais” column for the first and third items are really low, while they are quite high in the “Toujours” column, thus indicating grammar and lexis are the preferred ways to integrate pronunciation (see 6.4.6. for more details on lexis). On the other hand, it looks as if teachers are less likely to combine pronunciation exercises and explanations with syntax (56.1%, $n = 32$) and with language functions (59.6%, $n = 34$). For these two items, the number of answers in the “Jamais” column are rather high when compared to the “Toujours” column and to the results of the other items.

6.4.6. Section 6: Vocabulary Lists and Oral Tests

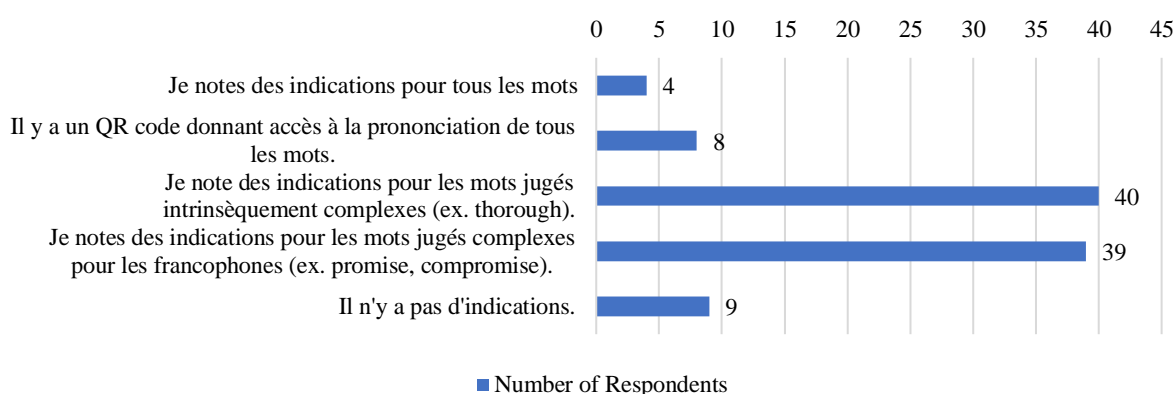
Because vocabulary was anticipated to be a field whereby teachers could tackle pronunciation easily (e.g., stress placement in words), two questions, that is, Q30 (see Figure 14) and Q31 (see Figure 15) questioned the respondents about the relation between vocabulary lists and pronunciation. It must first be noted that these two questions may have seen the answers

impacted by both the social desirability and self-deception biases (see 6.3.3.): absence of any information on vocabulary pronunciation in lists may not be socially accepted or desired among the teaching community.

Figure 14

Pronunciation Information in Vocabulary Lists

Q30) Quand notez-vous une indication sur la prononciation dans les listes de vocabulaire fournies en classe d'anglais langue étrangère ?

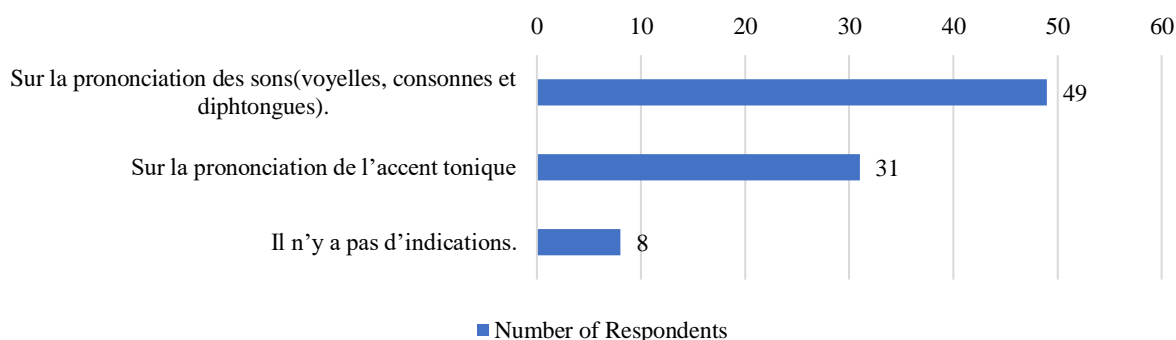


Overall, as suggested by the data, vocabulary lists contain information for words that are presumed intrinsically complex (70.2%), and/or difficult for francophone learners (68.4%); some segments and stress in general can indeed be difficult for francophone learners (Dupoux et al., 1997; Frost, 2011; Walter, 2001). Besides, that combination (i.e., “mots jugés intrinsèquement complexes ...” and “mots jugés complexes pour les francophones ...”) was selected by 47.% of the surveyed (n = 27). Also, the total absence of any information whatsoever (15.8%) appears to be more common than the presence of an pronunciation guidelines for every single word (7%) or than the presence of a QR code leading to audio files (14%).

If teachers indicate they do write information on the pronunciation of a word, they can provide it on either the segments (e.g., pronunciation of a vowel sound) or on the suprasegmental features (e.g., the place of the lexical stress). Question 31 asked what type of information teachers indeed provide.

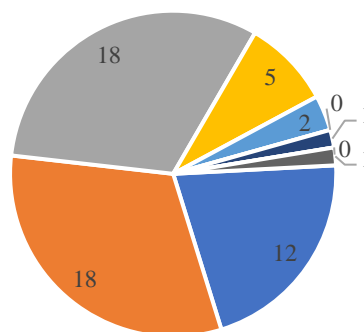
Figure 15*Focus of Pronunciation Information in Vocabulary Lists*

Q31) Sur quoi porte votre indication sur la prononciation anglaise ?



First, there is an odd inexplicable mismatch between Q30 and Q31 for 9 respondents in Q30 say they do not provide any pronunciation information in vocabulary lists, but 8 participants clicked on the same option in Q31. Figure 15 shows other more interesting results: nearly all participants (86%) state they add the pronunciation of segments to their vocabulary lists, while a bit more than half of the respondents (54.4%) say they also indicate the pronunciation of the lexical stress. The individual answers reveal that 50.9% of the teachers ($n = 29$) selected both items (i.e., segments and stress), 1.8% ($n = 1$) selected stress only, and that 12.3% ($n = 7$) selected the last option (i.e., “pas d’indications”) and another 1.8% ($n = 1$) all three.

The final questions of Section 6, that is, Q32 (see Figure 16) and Q33 (see Figure 17) revolved around the place pronunciation holds in oral tests.

Figure 16*Weight of Pronunciation Criterion in Oral Tests*Q32) Durant une évaluation orale certificative en anglais langue étrangère, quel poids accordez-vous **généralement** à la prononciation ?

Two options were most selected: “11 à 20%” (31.6%) and “21 à 30%” (31.6%). A bit more than one fifth of the instructors (21.1%) also selected “1 à 10%.” The remaining items

were barely picked, or not picked at all (e.g., “51 à 60%” and “71 à 80%”). One interesting statistic is that 2 respondents (3.5%) dedicate close to half the points (“41 à 50%”) in an oral test to pronunciation, while one other dedicates 61 to 70% and one last other goes as high as “81 à 90%.”

No matter the share pronunciation has in oral tests, it may form an exclusion criterion (see Figure 17),⁵⁷ so looking solely at that percentages cannot give a comprehensive overview of the place of pronunciation in oral tests.

Figure 17

Exclusion Pronunciation Criterion in Oral Tests

Q33) Durant une évaluation orale certificative en anglais langue étrangère, la prononciation peut-elle constituer un critère exclusif pour vous ?



For 5.3% of the participants, pronunciation is an exclusion criterion but it is not for 28.1% of the instructors. For a large majority of the panel (66.7%), pronunciation is an exclusion criterion in one case only: if pronunciation impedes intelligibility.

6.4.7. Section 7: Self-Assessment

Before analysing the ratings teachers give themselves regarding their pronunciation (Q34), mastery of theoretical concepts (Q35), and ability to teach pronunciation (Q36), it is crucial to say that the social desirability bias and self-deception (see 6.3.3.) are probably most present in these three questions: one can righteously expect that a teacher who rates their pronunciation 1 out 10 would be frowned upon (so both biases may come into play). On the other hand, it does not seem logic for an English teacher to pronounce things unintelligibly.

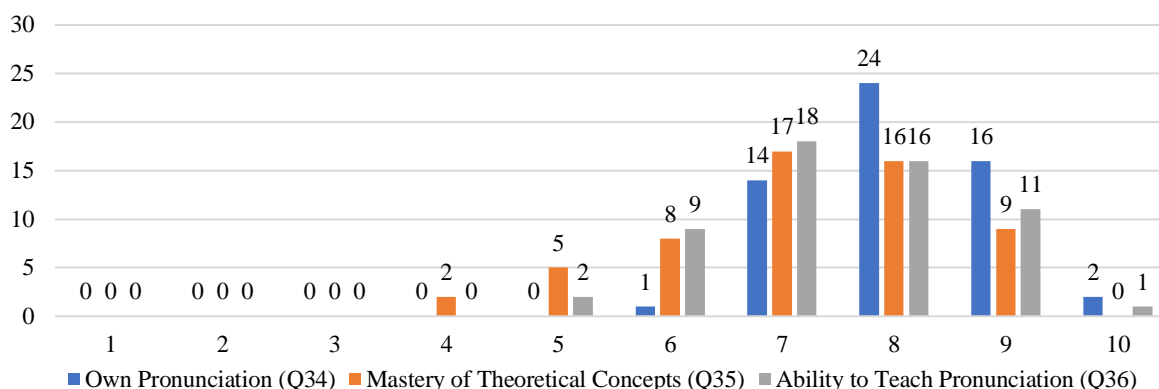
The data for the three questions are presented and combined in one graph (see Figure 18) with global remarks and means, but the results are not analysed further. This will however be done in a later section (see 6.5.).

⁵⁷ An *exclusion criterion* is defined as a criterion that results in the failure of the task if not it is not met.

Figure 18

Self-Assessment of Own Pronunciation, Mastery of Theoretical Concepts, Ability to Teach Pronunciation

Qs34 to 36) Sur une échelle de 1 à 10, j'évalue ma prononciation anglaise/ma maîtrise de la théorie/ma capacité à l'enseigner à ...



The results for Q34 (pronunciation ratings) are not that surprising, as none of the instructors rate their pronunciation below 6 on the scale. Thus, the mean score for Q34 is quite high: 7.72. Still, the results for Q35 (mastery of theoretical concepts ratings) are more sparse. For instance, there is not a 10 point score, and 7 teachers grant themselves 5 or less than 5 points. The mean remains well above the second half of the scale though: 7.17. Lastly, the data for Q36 (ability to teach ratings) point to an overall self-satisfaction with regard to the ability to teach pronunciation. One respondent even gives themselves a 10. Once again, the mean remains similar: 7.49.

With regard to other surveys, highly self-rated pronunciation skills appear to be normal (Henderson et al., 2012, p. 12), but high self-rated methodology and theoretical skills do not (Baker, 2011b; Couper, 2017, 2021; Foote et al., 2012; Henderson et al., 2012).

6.5. Discussion and conclusion

The aim of this last subsection is to go back to both the research questions and to the hypotheses (see 6.2.). The research questions are answered in the order they were presented in earlier (see 6.2.). Before doing so, it is relevant to summarise the approach the instructors surveyed prefer when speaking of teaching pronunciation and see whether it is rather explicit (i.e., explaining rules), implicit (i.e., focusing on input), or both (i.e., having input and clear explanations).

6.5.1. Explicit or Implicit Approaches

From the teachers' own choices in Q17 (see 6.4.5.), it appears the approach they favour is more explicit, but they remain implicit nonetheless. This is partially verified in Q16 (see 6.4.5.), since the teachers state they explain pronunciation features (i.e., an explicit activity), in spite of a stated focus on the practical side (see Q9 in 6.4.4.). Then, making use of metalanguages, such as keywords (see Q14 in 6.4.4.), and introducing IPA (see Q15 in 6.4.4.) are explicit activities.

On the other hand, the most often employed exercises are aloud readings and oral performances (see Q16 in 6.4.5.), which can be argued to be rather implicit: the pupils are exposed to oral input (i.e., their classmates reading and speaking) and one may expect that the teacher does not provide thorough pronunciation theory when a pupil is reading a piece of text. In essence, oral performances and aloud readings are implicit.

Still, the way these two activities are exploited renders them explicit: during them, the teachers provide a wide variety of feedback on various, but not all, mistakes (see Q21, Q22 and Q25 in 6.4.5.). Feedback, or guiding and questioning the pupil, is inherently explicit. Furthermore, when teachers present a new pronunciation feature, they claim they call on explicit techniques, such as contrasts, pictures, or exaggerated mouth movements (see Q18 in 6.4.5.). Even if, there is not any data on the amount of input the pupils are exposed to (e.g., the teacher speaking, listening comprehensions), teachers have to exercise listening skills in class and thus use a certain amount of oral input, so they must also work on pronunciation implicitly.

Therefore, it can be posited that teachers use a mixed approach in pronunciation teaching. On the one hand, they explicitly tackle pronunciation since they guide the pupils, show and explain how to pronounce some sounds thanks to a specific metalanguage. On the other, they use implicit activities where the pupils are passively exposed to input. On explicit or implicit approaches, it looks as if researchers promote both. The Articulatory Approach is based on the need of explicit knowledge of the relation between body and sounds (Billières et al., 2013a); phonological awareness (Venkatagiri & Levis, 2007, p. 273) along with PCA (Hu et al., 2013, p. 371) have proved to positively influence pronunciation. Explicit instruction was shown to lead to improvements, when compared to an implicit method, like repetitions (Gordon & Darcy, 2016, p. 81) At the same time, exposure to input (among others, Simon et al. 2014, p. 18, 2016, p. 740) and internalising voices (among others, LaScotte & Tarone, 2022, pp. 753–754; LaScotte & Tarone, 2019, pp. 104–105, 109; Moreno, 2016, p. 39) have been demonstrated to be beneficial.

This mixed approach can be explained thanks to the many meanings expressed in Q3 (see 6.4.3.). First, many respondents appear to believe theoretical knowledge on pronunciation is necessary for the teacher to teach pronunciation (Item 11), but a small majority does not believe theory is essential for the pupils (Item 21). Then, teachers also appear to believe that exposure to correct and sufficient English input is a must to learn pronunciation (Item 20). Moreover, the respondents' linguistics training is deemed satisfactory (hence an explicit method), and their methodology training as well, but less so (hence an implicit method) (Items 13, 14, 17, 18). Other justifications for the mixed approach include the reliance on (un)dedicated resources which may offer pronunciation knowledge (see Q19 in 6.4.5.) and the highly-self-rated teachers' theoretical and practical aptitude (see Qs35 to 36 in 6.4.7.). All this sheds light on why teachers deal with pronunciation explicitly and implicitly.

6.5.2. Research Questions

As far as the research questions are concerned, it was hypothesised about Q₁₃ ("What goals do teachers pursue in pronunciation teaching?") that pronunciation goals revolved around intelligibility or having a BBC Pronunciation accent (H₁₃). This hypothesis was partly proved (see Q2 in 6.4.2.): a majority of respondents (63.2%) claim they target intelligible pronunciation, but only 1.8% (n = 1) want their pupils to achieve native-like pronunciation. A last in-between goal aimed for by 35.1% of the participants is foreign accent deletion.

Then, the answer to Q₁₄ ("What techniques do teachers use to teach pronunciation?") was assumed to be repetitions and oral presentations (H₁₄). Again, this hypothesis was partly proved (see Q16 in 6.4.5.). The most frequent pronunciation activity is without a doubt aloud readings (employed by 31.6% of the participants), and oral performances are the second most frequent exercises (17.5%). Repetitions (e.g., choral repetitions, repetitions after feedback) are among the least frequent activities.

Concerning Q₁₅ ("Do teachers use textbooks to teach pronunciation?"), teachers were presumed to rely on (dedicated) textbooks to teach pronunciation (H₁₅). This hypothesis was not entirely verified (see Q19 in 6.4.5.). Combined, general textbooks and pronunciation dedicated textbooks are said to be used by 42.1% of the practitioners surveyed, but 33.3% do not call upon any textbook or any other resource. Besides, internet sites and posters with phonetic symbols are quite usual in classrooms (in the class of 31.6% and 29.8% of the respondents respectively). Because of the mixed results, it cannot be ascertained that H₁₅ is true.

Turning to Q₁₆ (“How do teachers use feedback regarding pronunciation?”), teachers were hypothesised to mainly use recasts in one context, that is, when a segment impairs intelligibility (H₁₆). Several questions verified the hypothesis, which turned out to be not entirely correct (see Qs21 to 26 in 6.4.5.). On the type of feedback, the data show that recasts are most commonly provided (by 96.5% of the teachers) but they are not the only types of feedback teachers give, as clarification requests (49.1%), elicitation (47.4%), metalinguistic feedback (47.4%), and repetitions (64.9%) are fairly common as well.

Then, segments are the subject of feedback: 71.9% of the teachers concentrate on vowel sounds, 61.4% on consonant sounds, and 77.2% on diphthongs. Still intonation and lexical stress are paid attention to by many respondents (59.6% and 66.7% respectively).

Additionally, two types of exercises were distinguished to further detail the use of feedback: spontaneous speech acts and aloud readings. Overall, it does not appear that teachers focus on intelligibility mistakes in any of the given contexts, seeing the low percentages (especially during aloud readings [10.5%], less so in oral speech [31.6%]). What the participants rather focus on are the main pronunciation mistakes: 56.1% do so during speech acts and 61.4% during aloud readings. Therefore, teachers appear to use recasts (but not only) when a segment mistake (but not only) is considered to be a main pronunciation mistake.

As far as Q₁₇ is concerned (“Do teachers use any kind of metalanguage to teach pronunciation?”), it was supposed that teachers may occasionally use IPA, (H₁₇). This hypothesis was confirmed and even clarified (see Q14 and Q15 in 6.4.4. and Q16 and Q19 in 6.4.5). In total, 28.1% of the panel claims they frequently use IPA, which is less than the 50.9% who claims they use short English words to teach English pronunciation. This is also confirmed by 52.6% of the respondents who state they use IPA with their pupils, against 47.4% who state they do not use it. In either case, it appears pupils are at least introduced to IPA (by 63.2% of the teachers), despite a clear lack of time (according to 75.4%), despite the existence of online dictionaries with audio files (77.2% disagree that they render the teaching of IPA useless), and despite 52.6% assuming that their pupils have difficulties with the alphabet. It is then quite clear and apparent that teachers exploit IPA to some extent. The alphabet and its symbols are even physically present in the classroom of 29.8% of the surveyed in the form of posters. Yet, phonetic transcriptions (e.g., from symbols to written English and vice versa) do not appear to be frequent activities.

In other words, according to the questionnaire, teachers may use IPA, but they do not seem to use it in exercises, despite teacher training revolving around phonetic notation (see H₂₂ below). It can then only be assumed what the purpose of IPA is: maybe it is a way to give precise feedback (see Q15 in 6.4.4.) and pronunciation information in vocabulary lists (see Q30 and Q31 in 6.4.6.).

The place non-native accents have in Belgian EFL classrooms was subject to Q₁₈ (“Do teachers call upon non-native accents in class?”) and it was supposed that instructors solely use NSs (H₁₈). This hypothesis was entirely denied (see Q27 in 6.4.5.). Speakers with a native English accent seem to remain the norm, as 50.9% of the participants indicate they always use speakers with native accents in listening comprehensions and 29.8% report they never call upon non-native accents. Thus, this means that NNSs and non-native accents do have a place in the classroom: 1.8% of the practitioners claim they often use non-native accents and 39% claim they sometimes use them.

In regard to Q₁₉ (“What norms do teachers refer to when teaching/evaluating pronunciation?”), it was hypothesised that instructors refer to BBC Pronunciation (H₁₉); it only seemed logical since it was also assumed that teacher used the British norm as a goal. This hypothesis was partly proved (see Q1 in 6.4.2.): 47.7% do indeed say that they refer to BBC Pronunciation, but the exact same number of respondents say they do not refer to any norm when evaluating their pupils’ pronunciation. Going deeper into details as to what these teachers may then refer to, one can assume they rely on intelligibility to test pupils’ pronunciation (see H₁₃ above).

The answer to Q₂₀ (“What features do teacher teach/focus on regarding pronunciation?”) has already been partially given, so the hypothesis that teachers rather focus on segments and on lexical stress has also been partially tested (H₂₀). Overall, H₂₀ was confirmed (see Qs10 to 13 in 6.4.4., Q16 and Q26 in 6.4.5., Q31 in 6.4.6.).

The instructors surveyed surely teach segments as at least 87.7% of them deal with all segments, but suprasegmentals also appear to be addressed in class since 70.2% claim to teach intonation and 73.7% claim to teach lexical stress, but in any case, a greater emphasis is put on segments. This emphasis naturally matches the degree of importance teachers grant the pronunciation features: the three most important items are vowel sounds (to 47.7% of the participants), diphthongs (to 36.8%) and lexical stress (to 33.3%). Besides, consonant sounds and intonation are not that far behind in terms of given importance. Logically, what teachers

focus on are what pupils are said to have most problems with, that is, lexical stress (35.1% of teachers say it is the most difficult feature for pupils) and diphthongs (26.3% say it is a problematic feature); also, a majority of the respondents (52.6%) rely on frequent errors to select pronunciation features to see in class, and their other selection criteria relate to errors or difficulties as well (e.g., the teachers' intuition of what is complicated).

Furthermore, the four activities that seem quite common in classrooms (i.e., aloud readings, oral performances, discrimination exercises, pronunciation feature explanations) are all (or at least can be) segment-oriented (e.g., discriminating between two close vowel sounds). They surely are suprasegmental-oriented as well, but the respondents pay less attention to that level. One may righteously expect that teachers provide feedback during these exercises, and what the respondents give most feedback on appear to be segments and lexical stress (intonation as well but it is less common).

A last sign pointing to a greater emphasis put on segments is the subject of extra information they incorporate within their vocabulary lists, and these pieces of information more often pertain to segments (86% of the cases) than to word stress (54.4%), which is a suprasegmental. Eventually, teachers do indeed focus on segments and on lexical stress, but they appear to address intonation quite often as well.

Apart from knowing what teachers do, it is relevant to inquire why they may (not) teach pronunciation (much) (Q₂₁, "Why do teachers [not] teach pronunciation [much]?"). The hypothesised reasons for the lack of pronunciation teaching were: lack of training in pronunciation theory (H_{21.1}) and in pronunciation methodology (H_{21.2}), teachers are not confident when teaching pronunciation (H_{21.3}), and they believe exposure to input is enough (H_{21.4}). A correlation was also put forward: the lower teachers rate their pronunciation abilities, the less likely they are to teach pronunciation thoroughly (H_{21.5}). One of these hypotheses may have been verified (see Qs3 to 8 in 6.4.3., Qs34 to 36 in 6.4.7.). Before diving into Q₂₁, it must be mentioned that this research question originates from the assumed absence of pronunciation teaching. Yet, this assumption and the questionnaire data do not match up.

On the one hand, more teachers appear to be satisfied with what they learned on pronunciation theory (66.7%) than with what they learned on pronunciation methodology (49.1%). This lower percentage can be explained by the limited range of activities done in methodology training (see H₂₂ below). Still, 54.4% feel language teaching methodology classes prepared them well enough to teach pronunciation, and 80.7% feel the same towards

language/linguistic classes ($H_{21.1}$ and $H_{21.2}$). Oddly enough, the mean score for the pronunciation teaching ability is higher ($M = 7.49$) than the mean score for the mastery of theoretical concepts ($M = 7.17$). These two scores, the latter one specifically, point to an overall confidence when teaching pronunciation, and so do the satisfaction and preparation percentages given above ($H_{21.3}$).

In addition, despite being considered important by a large majority (91.2%), input and its assumed positive impact on pronunciation does not appear to be a reason why teachers may not teach pronunciation ($H_{21.4}$). This can be seen with the respondents' opinions on natives: 93% (totally) disagree that only a native is able to teach pronunciation. This result points to the fact that correct native-like input is not the exclusive criterion to teach pronunciation, so exposure to input is, according to the teachers, not enough to teach pronunciation. Linked to that matter, a large share of the teachers (47.4% and 94.7% respectively) think theory and practice are necessary ingredients to pronunciation teaching.

Finally, it was advanced that a low pronunciation ability rating equalled to a less thorough pronunciation approach ($H_{21.5}$), but this hypothesis is almost impossible to verify for none of the respondents give themselves low pronunciation ratings, so a comparison between teachers is simply not doable. Nonetheless, the respondents have a rather high pronunciation rating mean ($M = 7.72$) and the approach to pronunciation depicted through the survey results appears to be rather complete (and in line with research guidelines [see 7.1.]): segments and some suprasegmentals are taught and practised explicitly and implicitly, and given feedback on, the pupils are exposed to a range of native and non-native accents, exercises can be perception based, IPA and keywords appear to be used, and various pronunciation resources seem to be exploited.

Concerning Q_{22} ("What kind of training in [teaching] pronunciation did/do teachers get?"), the hypotheses were the following: teachers received little training in pronunciation methodology ($H_{22.1}$) and some training in phonology and/or phonetics ($H_{22.2}$). The hypotheses were not verified (see Q_{s4} to 7 in 6.4.3).

The data on pronunciation methodology, despite first looking promising may actually be deceiving, as that training can be rather meagre ($H_{22.1}$). A majority of participants claim their traineeship supervisor (80.7%) and their teachers (59.6%) commented on their pronunciation. Fewer teachers state they have learned techniques and ways to teach the pronunciation of a foreign language (15.8%), or of English specifically (38.6%). Then, none of the respondents

say they have ever taken part in pronunciation training courses during in-service training, in spite of desire to do so (for 68.4%). Still, the respondents appear to be pleased with their methodology classes (see H_{21.2} above).

According to the participants' statements, their training in phonology and/or phonetics seems rather complete (H_{22.2}), and seems to have been IPA-oriented: phonetic transcriptions, learning IPA and another phonetic notation were quite common during their teacher training, as all three items were selected by at least 70.2% of the instructors. Prosody exercises were done by at least half of the respondents (52.6%). The activities a minority of the practitioners surveyed did are analysing the physical properties of pronunciation (24.6%), and learning the theory behind pronunciation (47.4%).

Finally, Q₂₃ dealt with the integration of pronunciation into the classroom environment ("How is pronunciation integrated into the classroom?"). With the analysis of feedback (see Q₁₆ above), H_{23.1} ("Pronunciation-dedicated moments mainly arise whenever communication breaks down") was slightly touched upon, but H_{23.2} was not ("The implicit or explicit integration of pronunciation into the classroom depends on the teachers' self-rated pronunciation level, in terms of pronunciation, ability to teach it, and mastery of theoretical concepts"). Both hypotheses were confirmed (see Qs28 to 29 in 6.4.5., Q30 in 6.4.6., Qs34 to 36 in 6.4.7.).

The first way to check H_{23.1} is to look at the activities most commonly employed in classroom and see whether feedback-related activities area among these (e.g., repetition after recasts). It is not the case as the teachers state aloud readings and oral performances are the most common pronunciation activities. These two exercises were looked at deeper (see H₁₆ above) and it appears feedback (or pronunciation-dedicated moments) does occur when communication breaks down (more so with speech acts), but not only, as feedback is provided when pronunciation mistakes are considered important.

More on H_{23.1}, the survey shows that teachers emphasise communication in tests and in the way they organise pronunciation moments in their class. Firstly, 77.2% of the teachers say they integrate pronunciation modules into a larger sequence, depending on the pupils' needs. This link caters to what the pupils require to fulfil the communicative tasks of the sequence and is then also in line with the pursued goal of intelligibility (see H₁₃ above): the pupils must be intelligible to communicate. Secondly, 84.2% dedicate from 1 to 30% of the total grade in oral tests to pronunciation, and some (66.7%) make it an exclusion criterion. In other words, pronunciation is tightly tied to communication and it possibly breaking down.

As far as $H_{23.2}$ is concerned, it is close to impossible to fully corroborate for none of the respondents give themselves low ratings, rendering any correlation between explicit teaching and scores unfeasible. In spite of that, the participants give themselves high pronunciation, theory, and teaching methodology scores, since the means are all above 7 (on a 10-point scale) and they tackle pronunciation more explicitly than implicitly (see 6.5.1.). Thus, it could be hypothesised that the higher the teachers' confidence is, the more explicit their pronunciation approach is.

7. Conclusion

This final section concludes this dissertation by first making a synthesis of the main information retrieved from both the literature review and the survey, and by then moving on to suggestions for future research.

7.1. Synthesis

The aim of this thesis was to answer the following question: Are francophone learners of English as a Foreign Language provided with the necessary tools to ensure viable pronunciation? This simple looking yet actually complex question had to be split into 23 other questions, which were themselves split into two groups, that is, the ones that would be answered theoretically thanks to a review of the available literature, and the ones that would be answered practically thanks to a survey. The following section goes back to these 23 questions in a theme-related order and it thus compares what researchers recommend doing and what practitioners say they do.

First and foremost, the central concept to the main research question must be defined: good pronunciation (Q₇). This phrase is far too general and is replaced in the literature by three concepts. First, there is accentedness, defined as a difference with a speaking norm (Flege, 1984). Second, there is comprehensibility, defined as the difficulty to understand one's speech (Derwing et al., 1998). Finally, there is intelligibility, defined as actual understanding (Derwing et al., 1998), so it is considered to be the most important characteristic when assessing one's speech (Derwing et al., 2013).

Pronunciation can further be detailed in two levels (Couper, 2021): segmentals and suprasegmentals, the former referring to consonant and vowel sounds (Kissling, 2013), the latter to stress, rhythm and intonation (Field, 2005) (Q₈). Both levels are argued to be critical to intelligibility (Bent et al., 2007) (Q₉), suprasegmentals especially (Hahn, 2004), and that is why some researchers recommend focusing more on suprasegmentals (Levis & Grant, 2003), while others advise spending teaching time on both levels (Chun, 2002),

The 57 teachers surveyed appear to do the opposite of what Levis & Grant (2003) suggest because they focus more on segments than on suprasegments, but address both levels nonetheless (Q₂₀). This choice is apparent in the way they use feedback, in the importance they award pronunciation features, and in how they exploit vocabulary lists. Besides, vocabulary lists and feedback are usual methods to incorporate a pronunciation component into the class,

which is actually most often integrated when the pupils need a specific feature (Q₂₃) (e.g., pronunciation of a complex word in a list).

This emphasis on communication needs is just what researchers advocate. More precisely, there are two main goals or paradigms teachers may choose to focus on: intelligibility and nativeness (Levis, 2005), the former pertaining to being understood and the latter to sounding native. Researchers (among others, Bowen, 1972; Couper, 2021; Derwing & Munro, 2014; Diana, 2010; Galante & Thomson, 2017) encourage teachers to emphasise the intelligibility paradigm, or at least the learners' needs, over the nativeness paradigm (Q₁). Yet, these goals may change depending on the teaching context (e.g., EFL, EIL, ESL), whereby sounding native can become completely justifiable (Q₁₀). In addition, within the intelligibility paradigm, and in EIL contexts (Jenkins, 2002; Setter & Jenkins, 2005), it makes sense to expose learners to proficient non-native models and explore why these accented speakers remain intelligible (Jenkins, 2000; Low, 2021; Murphy, 2014) (Q₆).

The 57 EFL teachers in francophone Belgium who answered the survey appear to follow all of these guidelines. They most aim for intelligible pronunciation or for accent deletion, so sounding native is not a frequent goal (Q₁₃). Then, logically, quite a few instructors sometimes call upon non-native accents in class (Q₁₈). Despite striving for intelligibility, many teachers use BBC Pronunciation to assess pronunciation, but many others say they do not refer to any kind of norm (Q₁₉) and probably then evaluate pronunciation based on intelligibility.

Turning to pronunciation techniques, there does not appear to be a clear consensus on the ultimate best technique, but researchers agree on several that have proved their efficiency in improving intelligibility, comprehensibility, fluency, and/or accentedness (Q₂). These are: phonetic notation (Fouz-González & Mompean, 2021), technology (Fouz-González, 2020; Thomson, 2012; Thomson, 2011), drama and imitation (Foote & McDonough, 2017; Galante, 2018; Galante & Thomson, 2017; LaScotte & Tarone, 2022; LaScotte & Tarone, 2019), perception exercises (Thomson, 2018), motor-based exercises (Messum & Young, 2021), the Silent Way (Richards & Rodgers, 2001a) and VTM (Renard, 2000a).

The teachers surveyed say they mostly use aloud readings and oral performances (Q₁₄). At first glance, these are not the techniques researchers advocate, but other, less common activities, fall within research recommendations, and these are discrimination exercises (i.e., perception), imitations and phonetic transcriptions (i.e., phonetic notation). On that matter, IPA and short keywords (i.e., phonetic notation) are also claimed to be used in class (see below).

As far as phonetic notation is concerned (Q₅), metalanguages offer possibilities in terms of autonomous learning (Marks, 2011; Mompean & Fouz-González, 2021; Mompean & Lintunen, 2015) and of feedback (Fouz-González & Mompean, 2021; Mompean & Fouz-González, 2021). Experiments also ascertained phonetic notation can improve perception (Fouz-González & Mompean, 2021). The data provided by the survey does not make it possible to know what teachers use a phonetic notation for, but they show that IPA and short keywords are used in class, in spite of several obstacles, such as complexity and time constraints (Q₁₇). What is clear though, is that teachers do not appear to use phonetic notation much in order to perform transcription tasks (e.g., from symbols to words).

One last pronunciation teaching technique is feedback (Q₄). Empirically tested, feedback (recasts in the study) proved to be a crucial component to pronunciation teaching (Saito & Lyster, 2012). The questioned teachers say they do make use of feedback, the moment, the type and the contents of which vary according to the activity. Overall, the teachers say they provide every type of feedback on the main pronunciation mistakes, and on segments, intonation or lexical stress (Q₁₆).

Moreover, textbooks can constitute valuable assets to classrooms (Thornbury, 2013), especially when it comes to teaching pronunciation (Derwing et al., 2013), but researchers (Derwing et al., 2013; Levis, 2005; Thornbury, 2013) advise caution when dealing with them for they may reveal inconsistent with what research promotes (Q₃): unclear explanations and unvaried exercises are rather common. However, the survey participants do not seem to rely too much on textbooks (Q₁₅), contrary to what many other surveys claim (Baker, 2011a; Couper, 2017, 2021; Foote et al., 2012) (see below). Indeed, less than half the respondents say they use a textbook (whether dedicated to pronunciation or not), so what they use instead are internet sites, posters, or some do even not rely on any of these resources.

In general, teachers thus tackle pronunciation in class. It was first assumed that it would not be the case and several reasons were put forward as to why they would not teach pronunciation much. Because this assumption turned out to be false, several reasons why teachers do teach pronunciation (opposed to reasons why they do not teach it) were identified (Q₂₁): satisfactory complete linguistic training and satisfactory not-as-thorough methodology training (Q₂₂), enjoying pronunciation teaching, its efficiency, its importance, its relevancy and the supposed absence of a critical period. According to the surveyed, input is not so important that it turns any pronunciation teaching useless, which is what research also puts forward (i.e., input alone cannot guarantee efficient intelligible pronunciation acquisition) (Saito & Lyster,

2012) (Q₁₂). Lastly, the practitioners' global positive relation to their training is visible in their high self-assessed scores.

Researchers surveyed the pronunciation approach of teachers before I did, and their conclusions can be summarised in one word: amateurism (Henderson et al., 2012). Teachers are not experts in pronunciation teaching but still teach it (Q₁₁). After reviewing all the data offered by the survey, it can be argued that the 57 EFL teachers are not that amateur when it comes to pronunciation teaching.

In conclusion, there does not seem to be a clear consensus on the absolute best pronunciation acquisition method, but there appears to be one on ground rules (e.g., exercising perception, aiming for intelligibility). The same goes for the teachers themselves, who do not all have exactly similar attitudes and procedures with regard to pronunciation, but general tendencies which are mostly in line with these ground rules, can be unearthed through the data (e.g., reading texts aloud).

7.2. Prospects

Two other analyses were planned but had to be scrapped since they, combined with the rest of this dissertation, would go far beyond the scope of a master's thesis. Analysing textbooks and legal Belgian documents would indeed have been relevant to better understand the place pronunciation holds within EFL Belgian classes; it would also have made it possible to compare the teachers' stated practices with what it is available to them in textbooks and with what is legally expected from them. For instance, it would have been interesting from a research point of view to check whether aiming for intelligibility (i.e., the teachers' goal) stands in the legal texts, or to contrast the range of exercises teachers say they do and what level they focus, with what textbooks have to offer.

Suggestions for further research include: observing teachers' actual practices, asking pupils their views on pronunciation and comparing types of training. This last follow-up study came to mind when teachers had to indicate what they did during their methodology classes. In Liège, methodology classes are not specific to one language (Université de Liège, 2023), but in other universities (such as in Brussels), they are (Université Libre de Bruxelles, 2022), so the satisfaction with methodology classes may be greater if several are proposed, even maybe leading to a greater variety in pronunciation techniques used. This remains to be empirically verified.

What is more, textbooks and legal texts are without a doubt and especially to teachers (Couper, 2021) important ways to incentivise teachers to focus more (or less) on pronunciation, and so do research and training. These four elements or pillars (i.e., research, training, legal texts, textbooks) all form a whole which may, if wanted, profoundly change the way teachers view pronunciation teaching. Research should indeed be complete and simple enough to understand for instructors (Couper, 2017; Derwing & Munro, 2005), training should follow researchers' recommendations (Chun, 2002; Gut et al., 2007), legal texts should consequently keep up to date with literature, and textbooks should eventually bridge the gap between the two training, research and teachers (Gut et al., 2007).

Everything thus appears to stem from research, which offers many, sometimes opposite, approaches. For instance, the Silent Way, although recommended by some, does away with input, while VTM insists on the teacher constantly speaking English. With all these suggestions, teachers may be at a loss as to what to do, and their practise is sometimes the contrary of what researchers promote (e.g., focus on segments). Other factors explaining why teachers may not really do as research recommends is difficulty. For instance, it may be difficult to have access to a language lab (Henderson et al., 2015) to enjoy the advantages of technology, or it is simply difficult to work on suprasegmentals since they are much more elusive than segments (Foote et al., 2016; Roberge, 2000b). Yet, out of the data, it is hardly ever the case that teachers do not do as research recommends: it mainly concerns the focus on segments and the range of activities. Eventually, sticking to a few guidelines (see 3.1.) may then reveal the most adequate and teacher-friendly approach; these could be focusing on both segmental and suprasegmental levels (e.g., constantly marking the placement of stress in vocabulary lists), working on features which impede the pupils' attempts at communicating (e.g., through lists of frequent errors) and working on the pupils' perception (e.g., through various listening comprehensions).

In conclusion, the answer to the main research question, that is, "Are francophone learners of English as a Foreign Language provided with the necessary tools to ensure viable pronunciation?" appears to be "Yes, they are." The results provided by the survey sometimes differ, but more often match what research advocates. It can thus be supposed that francophone learners of English as a Foreign Language are provided with the necessary efficient tools to ensure intelligible pronunciation.

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Appendices

As mentioned in the introduction, the appendices were given to the supervisors and to the readers digitally on USB sticks, in both Word and PDF format.