A COMPARISON OF THE EFFECTS OF TWO APPROACHES TOWARDS PRONUNCIATION INSTRUCTION INVOLVING TWO GROUPS OF BEGINNING LEARNERS OF ENGLISH AS A FOREIGN LANGUAGE

by

NILTON VARELA HITOTUZI

A dissertation submitted to the
School of Humanities
of the University of Birmingham
in part fulfilment of the requirements
for the degree of

Master of Arts
in
Teaching English as a Foreign or Second Language (TEFL/TESL)

This dissertation consists of approximately 12,116 words

Supervisor: Elizabeth Harrison

Centre for English Language Studies
School of English
University of Birmingham
Edgbaston
Birmingham B15 2TT
England

March 2004

ABSTRACT

The study reported in this paper aimed to experiment with two different approaches towards pronunciation teaching: one based solely on mimicry and implicit learning through exposure to the speech of the native-speaker parameter on an audiotape, and the other capitalising on the awareness of phonemic symbols and instances of the discourse intonation approach. Objectively the investigation sought to discover which of two groups of beginning learners of English as a foreign language (EFL), having received as little target-language input as possible, and with little or no familiarity whatsoever with the data involved in the experiment, would outperform the other in terms of accuracy and intelligibility after being given different treatments on pronunciation. At first it was hypothesised that, even having little exposure to a native-speaker model, the group receiving a treatment based on segmental and suprasegmental phonology would outperform the group undergoing a treatment basically involving exposure to a native-speaker model and repetition drills. The results indicate that the use of either approach can render similar levels of accuracy and intelligibility of EFL beginning-learner pronunciation production. Nevertheless, this conclusion is compromised by the conditions under which the experiment was conducted and the inconsistency of the raters' assessment of the pre- and post-tests administered to the groups involved. Finally, it is argued in this paper that, possibly, the reproduction of this experiment in a language school, where apparently the clientele is more motivated to learning the foreign target language than that in a state school (the type of school in which the experiment was conducted), for example, would yield more conclusive results.

DEDICATION

To God, my creator.

ACKNOWLEDGEMENTS

I would like to thank Professor Elizabeth Harrison, my supervisor, for her thoughtful comments on this dissertation. Additionally, particular thanks are due to Mr. Walquimar Vilaça Batista Borges, the headmaster of the state school where the experiment reported here was conducted, and to the students who volunteered for the study. Likewise, I am indebted to my wife, who has always been supportive. I would also like to thank Mrs. Olga Bastos, the coordinator of *PECLE* (*Projeto de Ensino com Capacitação em Línguas Estrangeiras*), for her help and continued support.

CONTENTS

LIST OF TABLES AND FIGURES

CHAPTER 1
INTRODUCTION

'The value of a clear and intelligible pronunciation for the purposes of communication should be understood by all learners.'
H. H. Stern

1.2 The rationale for the study

A basic question underlying this study is whether or not pursuing the achievement of good pronunciation of a foreign language (FL) through formal instruction is worth the time and effort. One of the arguments in favour of the value of good pronunciation may lie in the concept of self-representation.

Ivanič and Camps (2001) maintain that the concept of self-representation is ever present in people's behaviour; and that it is filtered through various nonverbal and verbal semiotic resources. The former can be conveyed by the manner in which one sits, eats, dresses or walks. If, for instance, one makes noise during mastication in a restaurant in Brazil, they will certainly be associated with a pig, which is extremely negative in this country. The accent with which people speak is an example of the latter. The desire of being identified as a Western African expressed by the Nigerian woman in Ivanič and Camps (2001: 5) seems to be a classic example of how verbal semiotic resources can be used to cast targeted self-representation.

Apparently, self-representation can be circumstantially voluntary or involuntary, though. At times one may choose to be viewed as a ruthless or kind person, for instance, for any particular reasons. At other times, one may be perceived as such, as a result of the working of other people's psyche (Martins, 1982). It seems that the choice (or imposition) of self-representation can be determined by the same influences that can trigger motivation. Shedivy (2004) comprises them into two major categories, namely (1) integrative and (2) instrumental orientations. These orientations can be viewed as the desire to conform to sociocultural and socio-political values, and the pursuit of personal economic interest. Such motivational factors can be influential in the way people's self-image is cast and the choice of their career. A prime example of this is the experience of

Cindy Jackson (2004), who has had a successful career as a cosmetic surgery adviser after having undergone several cosmetic surgeries in search of stereotyped female beauty.

Having said that, it is claimed in this paper that pronunciation too is a source of self-representation, and as such, it can have either positive or negative effects on other people, which, in turn, reflect on the speaker as a sign of success or failure in his or her professional or social (or both) dealings.

Those who learn the spoken form of a foreign or second language with an instrumental orientation in mind (Gardner, 1985, cited in Shedivy, 2004), for instance, will most probably seek to pronounce it as intelligibly and as close to the native parameter adopted as possible (Koren, 1995: 387). For these learners, good pronunciation is a major element for success in their careers.

Bad pronunciation, on the other hand, seems to jeopardise people's opportunities both in the professional and the social sphere. What student whose objective was to become, for instance, a TV anchor in a Spanish-speaking country would like to have someone who spoke *Portunhol* (a mixture of Portuguese and Spanish) as their Spanish teacher? Or how long would someone bear socialising with people who can hardly understand what other people say or be understood by them? In this same vein, Poedjosoedarmo (2004: 8) posits that 'fluent and well-educated speakers' usually associate bad pronunciation with 'less prestigious accents'. This point is further strengthened by Graham:

> …if one's written or spoken errors place one's apparent performance in the 'comic' or 'villainous' zones of perception, the message will be devalued in the minds of the recipients.
>
> Graham (nd)

Probably, this is one of the reasons why Gardner (1985, cited in Koren, 1995: 388) suggests that pronunciation is pivotal for those having integrative motivations.

The findings of a study conducted by Bresnahan et al. (2002) involving undergraduates in the United States of America further exemplify the effects of pronunciation on other people. They indicate that the majority of the subjects exhibited negative attitudinal and affective response towards foreign teaching assistants who had a strong foreign accent (low level of intelligibility). Foreign friends and teaching assistants displaying high level of intelligibility, on the other hand, were perceived as being 'attractive and competent' (Bresnahan et al., 2002: 182). Similarly, in a study on cultural and situational influences on FL learners' beliefs about language learning, Horwitz (1999) reports that the majority of the respondents to the Beliefs about Language Learning Inventory (BALLI), in seven studies analysed by her, considered important to speak an FL 'with an excellent accent' (Horwitz, 1999: 566).

Carruthers (1987: 192) claims that not having a good pronunciation can sometimes be a positive factor. This is most comforting for those who, for various reasons, cannot or would not 'touch the threshold' of what can be considered good pronunciation. But this does not change the fact that bad pronunciation can ruin one's chances in various fronts; ultimately it can even cause communication breakdown. Koren seems to endorse this stance. She makes the point that '[good pronunciation] is part and parcel of successful communication' (Koren, 1995: 388). Moreover, Goh (2000: 62) points out that the inaccurate pronunciation imprinted on ones' mind is of little, if any use for understanding accurate pronunciation, which means to say that there is a close link between production and perception of pronunciation (Kello, 2003: 620). This is likely to be another reason why L2 learners should focus on accuracy and intelligibility when learning an L2 for oral communication purposes.

Language teachers concurring on this view will presumably have their pupils work on pronunciation right from an elementary level. Nevertheless, perhaps many of them, capitalising on suggestions from coursebooks, or approaches with no empirical authority, might produce speakers with serious pronunciation problems in the target language. Thus, concerned with their pupils' development as they may be, it is almost certain that, reflecting on their students' pronunciation difficulties, they must wonder how they should approach formal pronunciation teaching (FPT).

Sharing this concern with pronunciation quality, I, too, keep wondering what approach (or approaches) and techniques I should use in my lessons so that my pupils' pronunciation can be enhanced. In my observations of lessons given by other EFL teachers, I have noticed a constant pattern on their approach towards pronunciation teaching: (1) mimicry of a native-speaker parameter on tape, and (2) exposure to the spoken language through audio/video materials – perhaps as an attempt at helping the learners acquire pronunciation implicitly (Krashen, 1983 and elsewhere). However, when comparing this trend with the approach adopted in ELT materials, such as the *English File* (Oxenden and Seligson, 1996) and the *Hotline* (Hutchinson, 1998) series, and Underhill's (1994) *Sound Foundations*, it becomes evident that this pattern is by no means the only current approach towards pronunciation teaching.

I for one, as an EFL learner myself, can only feel confidence in uttering a new word after reading its phonemic transcription in a dictionary. On might claim that this is a 'default' way of leaning pronunciation in the absence of, or for not exploring, other techniques; or that this may be a habit. Whether one thing or the other, the truth is that segmental phonology (Cauldwell and Allan, 1998) has given me a sense of self-confidence when using English in oral communication. Thus no further empirical experiment would be needed to lend credence to the usefulness of phonemic symbols for enhancing pronunciation quality and self-confidence when verbalising English words were not for the fact that individuals' learning styles must be considered when making generalisations about the effectiveness of teaching approaches (Gregorc, 1984; Dunn et al., 1995; Frederico, 1991, all cited in Miller, 2004).

1.2 The aim, objective and some limitations of the study

The awareness that there is more to FPT than imitation activities and exposure to TL models, combined with the desire to disseminate rudimentary notions of Brazil's (1994 a, b and elsewhere) Discourse Intonation (DI) approach amongst EFL beginning learners, and my own EFL learning experience were the elements that triggered the design and implementation of the experiment described in this paper.

Basically the aim of this study was to experiment with two different approaches towards FPT: one based solely on mimicry and implicit learning through exposure to the speech of the native-speaker parameter (NSP) on an audiotape, and the other capitalising on the awareness of phonemic symbols and instances of the DI approach. The experimentation involving this approach was an attempt at introducing basic notions about the division of speech into tone units, and about the intonation systems of prominence, tone and key to beginning learners of English. The fact that Brazil's (1994a, b) course on pronunciation was designed to cater for advanced learners' needs and the lack of evidence of similar attempt in the literature seem to indicate that this investigation had a pioneering element.

The objective of the experiment was to verify which of two groups of EFL beginning learners, having received as little TL input as possible, and with little or no familiarity whatsoever with the data involved in the experiment, would outperform the other in terms of accuracy and intelligibility after being given different treatments on pronunciation.

The initial hypothesis was that, even having little exposure to an NSP, the group receiving the treatment based on segmental and suprasegmental phonology (Cauldwell and Allan, 1998) would outperform the group undergoing a treatment basically involving exposure to an NSP and repetition drills throughout the sessions.

Finally, it is also imperative to note some important caveats. Firstly, the investigation was conducted by a non-native-speaker-of-English novice teacher-researcher. Secondly, the fact that the experiment was conducted in a school where English is studied as a compulsory subject can be considered a major variable in the study. Thirdly, the two available groups for the experiment were composed by teenagers whose attendance at the experiment sessions was rather irregular. Another factor may be that the gaps between sessions seem to have posed another intervening variable to the experiment. Finally, and importantly, the unavailability of experts in the field of phonetics and phonology to assess the tests administered to the participants in the study was also a major setback. Thus, in the light of these limitations, the results presented here are tentative at best.

CHAPTER 2
SOME CONSIDERATIONS ON FORMAL PRONUNCIATION TEACHING AND SOME OF THE APPROACHES ADOPTED TO IT

2.1 The role of pronunciation in the second-language classroom

Although pronunciation has been taught formally in the L2 classroom from time immemorial, it remains a controversial issue for the variety of stances addressing it. A diachronic analysis, as starting from the 1900s, reveals interesting facts about the way pronunciation has been approached by language teachers along the years.

FPT seems to group language-oriented writers and teachers into at least three broad categories: (1) those who disapprove of giving pronunciation special attention in the classroom, adopting thus an intuitive approach to it; (2) those who, even favouring an analytic approach towards pronunciation, draw heavily mostly on imitation techniques involving repetition drills based on native-speaker models; and (3) those who believe awareness of the sound system at both the segmental and suprasegmental levels with the help of visual aids – e.g. phonemic charts (Underhill, 1994), and arrows to indicate pitch movement (Brazil, 1994a, 1994b) – is also an important tool for enhancing accuracy and intelligibility of FL learners' pronunciation production.

Defenders of the Classical Method or the Grammar-Translation Method (GTM), as it was called later in the early 1900s, allotted little or no role to pronunciation in the L2 classroom. It is a GMT tenet that written language is superior to spoken language, thus the focus of a GTM lesson is essentially on grammar, vocabulary, meaning and mental exercise through memorisation aiming at developing learners' minds (Larsen-Freeman, 1986: 9-11).

On the rise of the twentieth century, proponents of the Direct Method (DM), in a reaction against the GMT, argued that learning a language was synonymous with being able to speak it intelligibly, and that the leaning process of an L2 would be the same as that of learners' L1. The L2 classroom should therefore capitalize initially on the spoken language. Apparently, in a DM lesson, pronunciation teaching is emphasized through

learner exposure to the target language repetition drills, and noticing of individual sounds (Larsen-Freeman, 1986: 20-21).

In the 1950's, borrowing the basic tenets of the DM, Fries (1945) and other language-oriented theorists founded the Audiolingual Method (ALM) – first known as the Army Method (Brown, 1994: 57). One aim of the ALM founders was to produce native-like-speaking learners through the Army Specialised Training Programme (ASTP) to meet the demand of the US Army, which needed fluent language speakers during the World War II. Drawing heavily on Bloomfield (1933), Pavlov (1955) and Skinner (1957), they established that pronunciation should be taught mostly through repetition drills for conditioning and habit formation (Newton, 1979: 18).

In the last quarter of the twentieth century, after the euphoria about the DM and ALM had receded, once more L2 writers began playing down the role of formal pronunciation teaching in the classroom. The new argument now was that pronunciation was learnt intuitively, thus L2 teachers could dispense with FPT. Amongst the most fervent advocates of the intuitive approach, in this post-reform era, are Krashen and Terrell (1983). They make a strong case against early pronunciation practice: 'In the Natural Approach we do not recommend any specific activities for pronunciation, especially in the early stages' (1983:90). Krashen and Terrell are sceptical of the belief that early pronunciation practice has much effect on ultimate pronunciation. Instead they believe that exposure to the target language alone suffices for the acquisition of intelligible pronunciation. Additionally, Krashen and Terrell dismiss as unfounded the argument advanced by some language-oriented professionals that premature fossilisation may be a corollary of little or no emphasis whatsoever on pronunciation in the L2 classroom. While polarising with not a few language-oriented writers (Callamand, 1981; Canale and Swain, 1980; Canale, 1983; Callamand and Pedoya, 1984; Celce-Murcia, 1987; Naiman, 1992, all cited in Stern, 1992; see also Long, 1983), these authors' stance concerning FPT appears to be endorsed by other expert views. One such is Broughton *et al* (1978) who half a decade before them had already hinted their allegiance to the intuitive approach towards L2 pronunciation while writing on how to approach FPT (emphasis added):

> Pronunciation teaching deals with two interrelated skills – recognition or understanding the flow of speech, and production or fluency in the spoken language. These skills rely very little on intellectual mastery of any pronunciation rules. *Ultimately it is only practice in listening and speaking which will give the learner the skills he requires.*
>
> (Broughton et al, 1980: 49)

This seems to be in line with Newmark's (1990) views. Besides dismissing the teaching of pronunciation through phonetics as counterproductive, this author suggests that through 'close observation' one can learn to use quasi-native pronunciation in speaking the target language.

Leather (1983) also seems to share Krashen and Terrell's view. This author claims that excessive emphasis on correct pronunciation may prevent learners from learning grammar or vocabulary. A possible answer to this concern of Leather's appears to be the implementation of activities in the L2 classroom aiming to raise learner awareness (Rutherford, 1987), stressing the importance of intelligible pronunciation vis-à-vis other aspects of the target language (e.g. grammar and vocabulary), since the interdependence of such components seems to be pivotal to achieving successful oral communication (Koren, 1995: 388). Furthermore, Leather posits that attention to pronunciation should be given based on the specific objectives the L2 programme. Considering the variety of actual L2 learner needs, this seems to be an obvious suggestion, though, inasmuch as there are certain L2 programmes which focus solely on reading text comprehension, for instance. In such programmes, less work on pronunciation might be required, as Stern points out:

> In our view, then, pronunciation is never unimportant, although the level of accuracy of pronunciation as an objective may well vary considerably for different types of courses (Stern, 1992: 116).

.

Despite focusing on a limited number of phonological items, Nunan appears to be yet another supporter of the intuitive approach towards pronunciation. Following Sato's

(1985) suggestion that some phonological features might be instruction proof, he maintains that the production of these features 'cannot and should not be forced by instruction (Nunan, 1991: 105; see also Scarcella and Oxford, 1994), implying either that there are language items (LI) that can only be learnt naturally, or that attempts at teaching LI which are beyond learners' current processing level are doomed to failure, as claimed by supporters of the learnability and teachability theory (Pienemann, 1984).

Nevertheless, FPT seems to have grown in prominence again, this time in various guises, yet not without overlapping boundaries. The primary example of this is Carruthers (1987: 191-199), who, adopting a rather eclectic approach, makes the point that pronunciation practice should be incorporated into the lesson through a variety of techniques, including work on minimal pairs, and use of articulatory charts, tongue twisters, limericks and backwards build-ups. He also favours the use of a phonemic script as an aid to teaching adults pronunciation.

Some advocates of the Communicative Teaching Approach (CTA), for example, while admitting the necessity for FPT in the L2 classroom, have tried to establish a connection between it and meaningful communicative practice (Pica, 1984, 2000; Pennington and Richards, 1986; Wong, 1987; Pennington, 1996). This seems to be an interesting way of approaching pronunciation in the L2 classroom, since the dearth of connection with anything realistic to learners which learning (the written or the spoken form of) a language in isolation generates (irrespective of learner proficiency level) appears to make learning a more difficult task. Insofar as pronunciation is concerned, a concurrent view is expressed by Stern:

> At no stage in a pronunciation syllabus should learners lose sight of the overall picture. They cannot deal successfully with particular sound segments without being able to relate them regularly to the way these sounds manifest themselves in the stream of speech. This fact should always be borne in mind in designing a pronunciation syllabus.
>
> (Stern, 1992: 116)

The importance of context is further echoed in Ohala and Shriberg's (1990, cited in Francis and Jones, 1996: 388) experiment on sound perception. They found that subjects had difficulty to identify target vowels which had been severely low-pass filtered to

eliminate frequency information above 1000 Hz. when these vowels were heard within the context of a sentence which had not been filtered in the same range. The vowels were reliably identified, though, when the context sentence was equally filtered (see also Firth, 1957; Sadock, 1978, both quoted in Brown and Yule, 1983: 37).

The visual and kinaesthetic approach towards FPT also clearly exemplifies the diversity in approaches and the growing concern with pronunciation in the L2 classroom (Acton, 1984; Gilbert, 1993; Brazil, 1994a, b; Pennington, 1996). This approach is part of a broader view of pronunciation teaching which advocates the use of multisensory modes as major tools to cater for different learning styles. Wrembel (2001: 65) describes four types of multisensory reinforcements which 'are being applied successfully by many pronunciation practitioners to make their lessons more effective': (a) visual (e.g. phonemic charts, diagrams and flashcards; (b) auditory (e.g. repetition drills and memory 'pegs'); (c) tactile (e.g. finger tips to feel vibration of the vocal chords, elastic bands to illustrate vowel length, and a piece of paper to introduce aspiration); and kinaesthetic (e.g. 'tracing intonation contours with arms, modelling the mouth with hands, counting the number of syllables on fingers, clapping or stamping the rhythm').

Within this same vein, however, there are some polarising views. While some insist on sound discrimination (O'Connor and Fletcher, 1989), others make a case against it, claiming that perception may not precede production (Goto, 1971). Yet, others seem to take a more harmonising stand by favouring concomitant work on listening and repeating (Leather and James, 1991; Pennington, 1996; Gilbert, 1993, Rogerson and Gilbert, 1990). Underhill's (1994) *Sound Foundations* is exemplary of this line. Adopting a pragmatic, bottom-up approach, through his three-level *discovery* and *classroom toolkits*, he systematically introduces segmental phonology as an attempt at making his readers perceive it through their senses.

Resorting to Contrastive Analysis (CA) as an attempt to tackle L2 learner pronunciation difficulties is not uncommon, mainly in university courses on phonetics and phonology (Baker, 1977; Kenworthy, 1987; O'Connor and Fletcher, 1989; Bowler and Cunningham, 1991; Deterding and Poedjosoedarmo, 1998). Tarone (1978),

nevertheless, disapproves of an approach drawing heavily on CA. This author sustains that interlanguage (IL) phonology is affected by other more important factors, such as avoidance, overgeneralization and approximation (see also Flege, 1987; Eckman, 1977; Maken and Ferguson, 1987). Such dismissal of CA as tool for pronunciation teaching has not discouraged other language-oriented writers and teachers of advocating its usefulness in the L2 classroom. Gloria Poedjosoedarmo, for instance, in *O Ensino da Pronínucia: por quê, o quê, quando e como* (The Teaching of Pronunciation: why, what, when and how – my translation), which has been recently published, suggests sound contrast activities for improving pronunciation accuracy (Poedjosoedarmo, 2004).

More recently, there has been a great shift towards suprasegmentals triggered by the growing sensitivity to the communicability of prosodic features in spoken discourse (Brazil et al, 1980; Sinclair & Brazil, 1982; Brown and Yule, 1983; Brazil, 1985; Coulthard, 1985; McCarthy, 1991; Brazil, 1994a, b; Gilbert, 1993). A good example of this is Discourse Intonation (DI), the approach devised by David Brazil at the University of Birmingham, which has added a new and attractive chapter to the history of pronunciation teaching.

Koren (1995:389) maintains that suprasegmentals play a major role in the developmental process of L2 learner IL phonology. This is an area which deserves further elaboration in this paper for the fact that intonation was also subject to analysis in the study reported here. Thus an elaboration on the meaning of prosodic features and the intonation system of prominence, tone, key and termination as proposed by Brazil will be conducted in the next two sections.

2.2 On the meaning of prosodic features

Apparently, the interpretation of a given message is dependent on a series of interrelated conditions. Firstly, a crucial aspect for that appears to be the *profiles*, or the 'interpenetrating biographies' (Coulthard, 1985:106) of the participants – writer/speaker on the one end of the *channel*, and reader/hearer on the other. Thus, the way the participants perceive the world and the socio-cultural relationships involved in it can determine how they interpret a given communication. Schank (1979: 400, cited in

Brown & Yule, 1983: 207) strongly concurs with this view: ‘humans understand what is said to them in terms of their own knowledge and beliefs about the world’.

Secondly, as it has been previously mentioned, *context* appears to be another key element for understanding both spoken and written texts. Firth (1957: 226; see also Sadock, 1978: 281, both quoted in Brown and Yule, 1983: 37) endorses this point by suggesting that situational contexts play an important role in understanding verbal exchanges. The idea that context variation may be tantamount to meaning variation seems to be a tenable one (Fillmore, 1977). Consider the meaning of the word *storm* the following utterance in two different contexts:

> The storm began five minutes after the politician had started his speech.

Context 1: A politician is delivering a public speech in a winter season in a city in the Amazon rainforest. In this scenario, *storm* may be synonymous with ‘a violent disturbance of the atmosphere with strong winds and …with thunder and rain …’ (The Concise Oxford Dictionary of Current English, 1990:1202).

Context 2: A presidential candidate in Colombia in the 1990’s outlining his plans for dealing with the drug cartel in that country in a public appearance. At this juncture it is likely that the word storm is being employed as an umbrella term to describe the disturbance resultant of an assassination attempt perpetrated by drug dealers.

Another interesting example of this can be found in Brown and Yule (1983: 36; see also Coulthard, 1985: 2).

Finally, Brown and Yule (1983:209) make the point that *intonation* can be yet another non-formal meaning constrainer. Nevertheless, the predictability of meanings through this suprasentential substance seems to be highly intractable for the discourse analyst, especially because the construction of meaning based on it seems to be realised on a moment-to-moment basis by the speaker in real-time interactions. Perhaps this is why discourse analysts would rather ‘dissect’ teacher talk than conversation outside the

classroom (Sinclair & Brazil, 1982; McCarthy, 1991; Coulthard, 1985). The next section reviews the contribution of intonation towards an understanding of spoken texts.

2.3 Meaning through intonation

2.3.1 Some features of the intonation system: It seems common ground amongst many linguists that intonation also plays a major role in determining the meaning of linguistic items. However, before exploring their views, it is deemed necessary to briefly outline some of the main features of the intonation system.

According to Cauldwell and Allan, as demonstrated in Table 1, a reproduction from Couper-Kuhlen (1986:7, cited in Cauldwell and Allan, 1998: 4), there are three basic dimensions involved in the oral/aural communication system.

Table 1

DIMENSIONS OF SPOKEN COMMUNICATION		
Articulatory	**Acoustic**	**Auditory**
Vibration of vocal folds	Fundamental frequency	Pitch
Physical effort	Amplitude (intensity)	Loudness
Timing of movements	Time	Duration

Cauldwell and Allan (1998: 4-5) also point out that the perception of *pitch*, *loudness*, and *duration*, all in the auditory column, is resultant of the interaction of the three dimensions in question. Moreover, they go on to say that these prosodic features are the terms through which intonation is commonly studied. Nevertheless, perhaps due to the daunting intricacy of the matter, many discourse analysts have chosen to describe intonation in terms of pitch alone (Coulthard, 1985:101).

2.3.2 The construct of pitch: McCarthy (1991: 99) maintains that many phonologists believe that the stream of speech can be divided into tone units within which pitch moves. Pitch movement is expressed basically in terms of four categories: *prominence*, *tone*, *key*, and *termination* (Brazil, 1985, cited in Coulthard, 1985: 101). The first, as Brazil (1994b: 9) makes the point, 'is better regarded as something one can recognise only within the overall pattern of the tone unit of which it is part'. Thus, prominence can only be considered a category of pitch movement in so far as it lends itself as the key element upon which pitch moves. In addition, it seems prominence can be described, in many cases, in the same way is stress in dictionary entries.

Compare:

Dictionary entry	Tone unit
a) /nəʊˈteɪʃᵊn/	//noTAtion//
b) /kəˌmjuːnɪˈkeɪʃᵊn/	//coMMUniCAtion//

Apparently, there is only a shift in terminology in the comparison above. For one thing, when a one-prominent-syllable word uttered in citation form, as in a), is spoken as a tone unit, its stressed syllable is labelled *tonic syllable* (notice that, following Brazil's (1994a, b) suggestion, tonic syllables are capitalized and underlined to distinguish them from other prominent syllables, which are also capitalized). For another, when a word uttered in citation form, as in b), has both a secondary and a primary stress, the syllable on which the former is laid is coined *prominent syllable*, and the one where the latter is placed is the *tonic syllable* when it is spoken as a tone unit (Brazil, 1994b: 10; McCarthy, 1991: 99). However, the very fact that the tonic syllable is always the last prominent syllable in a tone unit seems to prevent further analogy between dictionary entries and tone units in terms of prominence.

Compare:

Dictionary entry	Tone unit

/ ˈʧiːzˌpeərɪŋ/ either //CHEESEparing// or
//cheesePARing//, or yet //CHEESEPARing//
but not //CHEESEPARing//

Thus, it is evident that, in the case of words having the same pattern as *cheeseparing* when spoken in citation form, the second prominent syllable either becomes non-prominent when spoken as a tone unit since normally there is no prominence after the tonic syllable within a tone unit (Brazil, 1994b: 34), or becomes the tonic syllable of the tone unit, obliterating then the similarity between dictionary entry and tone unit stress pattern. McCarthy seems to concur with that:

> Many other polysyllabic words may only have one *prominence* but may still have primary and secondary word stress (e.g. ^{1}*CAta*^{2}*lyst*, ^{1}*CONfis*^{2}*cate*, ^{1}*WHEREa*^{2}*bouts*).
>
> (McCarthy, 1991: 95)

The distinction between dictionary-entry and tone-unit stress pattern appears to have relevant implications for FPT. For one thing, if learners are denied this notion, they may have difficulty in both producing intelligible and non-stilted utterances and in understanding native-speaker production. This is very much the case when the misleading belief that dictionary-entry phonemic notations provide the only correct pattern for pronunciation is part of learner conception of language learning. For another thing, even with those mature learners trained to notice the difference between these two systems of stress pattern there is some risk of evasiveness of meaning if they lack the awareness of the significance of prominence.

2.3.3 The significance of prominence: A speaker's decision of giving prominence to certain words seems to be dependent on the available choices in the existential paradigm, the set of options available in a given context. This is amply exemplified in a set of three question/response pairs found in Coulthard (1985: 102), which is quoted here:

1. Q: Which card did you play?
   R: //the QUEEN of HEARTS//
2. Q: Which queen did you play?

R: //the queen of HEARTS//

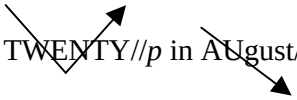
3. Q: Which heart did you play?
   R: //the QUEEN of hearts//

Considering the composition of the pack of cards, as Coulthard (1985:103) suggests, in (1) the speaker had a universe of thirteen possibilities to choose from on the one hand and another of four possibilities on the other. However, in (2) the number of possibilities drops to four, since 'queen' is a *given* term, that is, 'queen' is part of the shared knowledge between the speakers. In the third example, there is a universe of 13 possibilities, inasmuch as the newly shared information is no longer focused on the suits. In sum, the relevant aspect about prominence is that a speaker will make prominent (1) items that have an existential paradigm to draw on (2) on the basis of what he/she considers as not part of the listener's common ground, or (to use Coulthard's terms) not 'interactionally given' (Coulthard, 1985: 104).

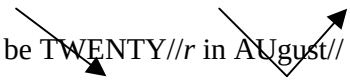
There is a moot point over the characterisation of tone, the second category, labelled as pitch movement by many discourse analysts (Coulthard, 1985:102; Sinclair and Brazil, 1982: 102; Brazil, 1994b:8). It seems though that Brazil's (1994a, b) simplified terminology is appropriate for work at suprasegmentals in the L2 classroom (Table 2). Additionally, although there is also broad disagreement amongst linguists as to the exact meaning pitch movement conveys, the relevance of tone variation seems to be precisely that it may have a different meaning whenever it occurs. The prime example of this is the choice speakers seem to make between, say, a *falling* tone and a *fall-rise* tone – proclaiming, symbol *p*, and referring, symbol *r*, respectively, to use Brazil's terminology (Brazil, 1985, cited in Coulthard 1985: 106, and Cauldwell and Allan, 1998: 30-31).

Compare:

a) //*r* he'll be TWENTY//*p* in AUgust//



b) //*p* he'll be TWENTY//*r* in AUgust//



With these example, Coulthard (1985: 106) demonstrates Brazil's (1985) argument that referring tones are chosen when the speaker wants to convey parts of his/her message as part of the shared knowledge with the listener, and that proclaiming tones are used as an indication of addition of new items to the area of shared knowledge. Thus, in example a) "a potential hearer is 'told'" when a mutual acquaintance will have his twentieth birthday", whereas in b), the suggestion is that the potential hearer "is 'told' how old the acquaintance is (or will be)". There is therefore an obvious correspondence between interlocutors' shared knowledge and referring tones on the one hand, and what is 'news' and proclaiming tones on the other.

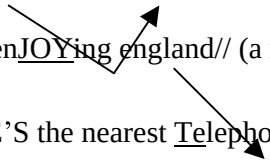
Importantly, the notion of common ground between interlocutors can be at the speaker's service for the purpose of ideological manipulation. Underhill (1994:86) points out that this is very much the case 'in the speech of advertisers and politicians who may use intonation to suggest that what they are saying is already negotiated and agreed by us, and part of our common ground, even when it isn't'.

Moreover, Brazil (1994b: 20; 60) also adds some equally important facts about proclaiming and fall-rise tones. He points out that while *r* is the preferred tone in (a) 'making-sure' questions and in (b) 'social' enquiries, *p* is normally the choice in (c) enquiries about matters unknown to the enquirer and (d) when information asked for is provided.

Compare*

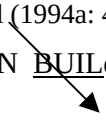
a) //*r* i suPPOSE you don't know who the PUBblisher is// (a shop assistant to a customer in a bookshop)

b) //*r* are you enJOYing england// (a member of a host family to an exchange student)



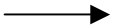
c) //*p* WHERE'S the nearest Telephone please// (an old woman to a police officer)

*Utterances a and b are quoted from Brazil (1994a: 42-43; 45)



d) //*p* it's next to the GREEN BUILding madam// (the officer's response to the woman's enquiry)

Table 2

SYSTEM OF PITCH MOVEMENT		
Tone	Symbol	Shape
Falling	p	
Rising	r+	
Rise-fall	p+	
Fall-rise	r	
Level	o	

The choice between fall-rise (r) and rising (r+) tones equally amply exemplifies the fact that a slight shift in pitch may represent a shift in meaning. Nonetheless, although Sinclair and Brazil (1982: 114-119) seem to have chosen not to explore the subconscious ideological edge involved in the *r/r+* system, the choice of either one is likely to be related with the 'role of the speakers' involved (Sinclair and Brazil, 1982: 116-119). For one thing, as Sinclair and Brazil (1982) suggest, the choice of *r+* is likely to be made by members of a specific class of interlocutors, such as teachers, interviewers, employers, and senior officers/employees, or by anyone who arrogates to themselves the role of dominant speaker. This seems to occur in extremely restricted environments, and occurs mostly because of the strength of long-established social rules as, for instance, it is the case of teacher/pupil interaction:

> This is not to say that pupils can't [reciprocate what teachers do], it is just that it is unusual and if they do so they are seen as doing something different from the teacher, usually they are 'being cheeky'.
>
> Coulthard, 1985: 109

Brazil (1985, cited in Coulthard, 1985: 110) argues that the option realised by *p*+ in detriment of *p* is used to indicate addition of simultaneous 'information both to the common ground and to [the speaker's] own store of knowledge'. Furthermore, he goes on to say that *p*+ is also used to express feelings, such as surprise, disappointment, and enjoyment.

e.g. //*p*+ you've MISSed the PLANE//

On the face of it, the decision on whether *p*+ signals surprise, disappointment or enjoyment is dependent not so much on the pitch movement proper as on context (facial gestures inclusive), as it seems to be the case in the aforementioned example. At this point, many would be likely to agree that discourse analysts would capitalise much more on Crystal's (1995) comprehensive description of tone forms than on Brazil's simplified description of pitch movement.

Sinclair and Brazil (1982: 41) point out that key, the third category, 'has to do with the pitch level of the voice', and that it describes spoken interaction in three levels, each conveying a different meaning (Table 3). The examples in Coulthard (1985: 111) quoted in Table 3 seem to lend credence to that.

Table 3

THE KEY SYSTEM		
Pitch level	Meaning	Example
High key	Contrastive	//*p* he GAMbled// *p* and LOST// (contrary to expectations; i.e. there is an interaction-bound opposition between the two)
Mid key	Additive	//*p* he GAMbled// *p* and LOST// (he did both)
Low key	Equative	//*p* he GAMbled// *p* and LOST// (as you would expect, i.e. there is an interaction-bound equivalence between them)

In the light of these examples, it seems safe to suggest that pitch levels are items in the intonation system which speakers can use to convey meaning at any given level of oral communication. Additionally, apart from the three meanings described in Table 3, key

can be used to express attitudes such as politeness, assertiveness and indifference (Coulthard, 1985).

Finally, there is termination. Sinclair and Brazil (1982:152-154) demonstrate that termination is intrinsically related to key, and that the number of termination choices is limited (Table 4). The examples in Table 4 are adapted from Sinclair and Brazil (1982:154-155).

At least two assumptions may be made from the composition of Table 4: one is that termination can move only one step up or one step down from de chosen key level (Sinclair and Brazil, 1982: 154); and the other is the fact that dominant speakers seem to capitalise on termination level (Coulthard, 1985: 118).

Sinclair and Brazil (1982) maintain that discourse analysts can choose to focus on a few termination choices, namely those involving the transition of turns in an interaction. Furthermore, they argue that in such instances termination is meaningful insofar as one speaker's termination choice suggests his/her expectation about the termination choice for the response when handing turns over to the other interlocutor. Additionally, it seems that this is the case even when a turn is handed over with low termination, since the speaker's expectation here is exactly not to expect his/her listener response in any particular key-level choice.

Many would be likely to agree that the introduction of suprasegmentals in the L2 classroom, especially that of the intonation systems of prominence, tone, key and termination, cannot be seen as an easy task – and it is certainly not for non-native teachers because of the limitations of L2 linguistic experience, a phenomenon that is part of FL learners' reality (Harnsberger, 2001). The assumption in Brazil's (1994a, b) *Pronunciation for Advanced Learners of English* is that awareness of these systems is not only pivotal for the enhancement of oral/aural fluency, but also for the development of skills in the field of semantics at an advanced level.

Table 4

THE TERMINATION SYSTEM			
Key level	**Termination level**	**Meaning**	**Example**
High	High	Expectation on the part of the speaker of a *contrastive* answer: *yes/no*.	T: //*p* do you THINK this one's LARger// P: //*p* YES//
	Mid	Pressure from the speaker for a favourable response by the other interlocutor.	T: //*p* do you THINK this one's LARGer// P: //*p* YES//
Mid	High	Expectation on the part of the speaker of a *contrastive* answer: *yes/no*.	T: //*p* do you THINK this one's LARger// P: //*p* YES//
	Mid	Pressure from the speaker for a favourable response by the other interlocutor.	T: //*p* do you THINK this one's LARGer// P: //*p* YES//
	Low	The speaker imposes little or no constraint on the next 'turn taker'.	//*r* and the QUEStion i want to PUT to you//*r*+ IS//*p* DO we NEED//*p* an INcome POLicy//
Low	Mid	Pressure from the speaker for a favourable response by the other interlocutor.	T: //*p* do you THINK this one's LARGer// P: //*p* YES//
	Low	The speaker imposes little or no constraint on the next 'turn taker'.	//*r* and the QUEStion i want to PUT to you//*r*+ IS//*p* DO we NEED//*p* an INcome POLicy//

However, the great challenge now seems to adapt the wealth of information on DI shared by the aforementioned authors to beginning-level L2 classrooms. Given the importance of suprasegmental features for successful communication, it appears that the earlier L2-learner consciousness about DI is raised the earlier pronunciation quality and ability to express and perceive meaning are improved (Anderson-Hsieh et al., 1992; Derwing et al., 1998, all cited in Rossiter and Derwing, 2002).

In the light of this brief review on the role of pronunciation in the L2 classroom in the perspective of some language-oriented writers and teachers, it seems that (1) FPT is still an option for those seeking good quality pronunciation; that (2) an eclectic approach towards FPT appears to be more in line with modern views on it; (3) and lastly but equally important is that FPT appears to be currently capitalising on suprasegmentals.

Nonetheless, there seems to be a crucial question left unanswered in the literature reviewed here: Will an FPT approach involving the awareness of a given TL sound system through phonemic symbols, at the segmental level, and DI, at the suprasegmental level, be more effective in aiding beginning learners in the production of intelligible TL utterances than one focusing solely on traditional pronunciation drills?

In the pursuit of the answer to this question, and with the intent to hopefully make the slightest contribution to this field, the tentative micro experiment detailed in the next chapter was implemented.

CHAPTER 3
THE EXPERIMENT

3.1 The research question

The research in this study is based on the following question: 'Will beginning learners of English as a foreign language submitted to a treatment of explicit pronunciation teaching, involving awareness of phonemic symbols (segmental phonology) and consciousness-raising activities based on Brazil's (1994a, b and elsewhere) DI (suprasegmental phonology) (T_1), display more accuracy and intelligibility in their utterances than those trained solely based on pronunciation drills, exposure to fluent speakers on recordings and implicit acquisition of pronunciation features (T_2)?'

3.2 The research hypotheses

At first, it was hypothesised that (1) beginning learners submitted to T_1 would display significantly higher accuracy and intelligibility pronunciation production levels than those submitted to T_2. Nevertheless, in the absence of empirical evidence in the literature to suggest that T_1 is more effective (or otherwise) than T_2, two other hypotheses had to be formulated: (2) that learners receiving T_2 would significantly outperform those receiving T_1; and that (3) there would be no significant difference in learners' pronunciation production quality when comparing the speeches of a group submitted to T_1 with those of another group submitted to T_2. As an attempt at verifying these hypotheses, an experiment was designed and implemented at a state school in Brazil.

3.3 Subjects

The experiment was conducted on a sample of sixteen Brazilian students, six girls and ten boys, in the 13-16 age range, attending the sixth year of *Ensino Fundamental* (EF) at *Inspetora Dulcinéia Varela Moura* State School, in *Novo Israel*, a district in the west zone of the city of Manaus, the capital of the state of Amazonas. The subjects were

divided into two eight-student groups: the control group (CG), and the experimental group (EG). The criteria adopted for standardizing CG and EG participants were essentially (1) the level of familiarisation displayed by candidates with the pronunciation of the words involved in the experiment (obtained through a reading test), (2) candidates' rate (in hours) of monthly exposure to spoken English, (3) candidates' attitude towards learning English and (4) their level of motivation towards acquiring native-like pronunciation of a target language. Additionally, the subjects' names are replaced with numbers in this report in compliance with the National Research Act of 1974 (cited in Seliger and Shohamy, 1989:196).

3.4 Material

The selection of CG and EG involved two strands: a questionnaire (Appendix I), which was completed by two EF sixth-year groups, totalling forty-one students, and a reading test consisting of a thirty-seven-word text (henceforth TX) and a list of thirty-three entries (Appendix II). Furthermore, care was taken to select a text containing sounds which are non-existent in the sound system of Brazilian Portuguese.

Importantly, the 'selection test' administered to these candidates was considered the pre-test of the participants in the experiment, and was used for post-testing them as well. The reading of the word list and TX (the items constituting the pre- and post-tests) by each CG/EG member was recorded on two TDK-60 microcassettes, with a GE 3-5373 microcassette recorder.

In addition, the choice of a word list and a text to constitute the pronunciation production test (PPT) in the study was based on the suggestion that the quality of students' pronunciation is improved in more controlled situations (Dickerson, 1975; Koren, 1995: 392). In Koren's rising degree of care in pronunciation – an adaptation of Tarone's (1983: 152, cited in Koren, 1995) *interlanguage continuum* – the reading of a word list is categorised as 'more attended speech data' and that of a text as 'attended speech data'. A further benefit from this kind of PPT is that it seems to diminish oral-test assessment subjectivity.

For exposing CG and EG members to the NSP used in the experiment, a Panasonic RX-D14 portable stereo CD system and the cassette two (henceforth PALE-KT) of Brazil's (1994a, b) *Pronunciation for Advanced Learner's of English* (PALE) were used.

3.4.1 Worksheets used with the Control Group

The treatment applied to the control group involved two worksheets (Appendix III): a list of words from TX (Worksheet A), and TX (Worksheet B); a translation of the items into Portuguese was provided on both worksheets.

3.4.2 Worksheets used with the Experimental Group

Because of the nature of the treatment administered to the experimental group, five worksheets had to be used with this group. For the sake of practicality, they will be labelled in alphabetical order following the sequence of the ones used with the CG students, thus from C to G.

Worksheet C consisted of a list of TX words coded in phonemic transcriptions following Underhill's (1994:49) two-level patterns for pronunciation practice plus their respective Standard English spelling forms – the phonemic symbols used in the research can be found in the *Cambridge International Dictionary of English* (1995). Importantly, at this point, EG had not been provided with a Portuguese translation of the English words involved in the experiment yet; this was purposefully postponed as an attempt at having EG members focus on 'sound image' in the early stages of the treatment.

The next handout (worksheet D) presented TX divided into tone units, an adaptation of Cauldwell and Allan's (1998: 46) analysis of a larger portion of the same excerpt found in unit eight of the PALE Course (Brazil, 1994a, b). Worksheet E had all elements from worksheet C, except for the level-1 column, plus the Portuguese translation of the words involved. Worksheet F comprehended an exercise on phonemic transcriptions involving Portuguese and English words.

Finally, worksheet G included two TX versions: the first consisted of the content of worksheet B, and the second was TX divided into tone units. Additionally, for the treatment administered to EG, a collection of thirty-two cards (size = 8.7 in. x 9.8 in.) displaying triple information: (1) phonemic symbols, (2) pictures and (3) captions both in Portuguese and English was devised (Appendix IV)

3.5 Procedure

After taking the pre-test, CG and EG were submitted to two different sequences of activities aiming at verifying the research hypotheses. An estimated total of 90 minutes was spent on the treatment administered to each group: 30-minute afternoon meetings were held once a week. Furthermore, the treatment administered to CG consisted of two simple activities: (1) reading through Worksheet A several times, (2) and trying to mimic a native speaker of English on the PALE-KT excerpt used in the research (Worksheet B) – this recording was the NSP. The conduct of these activities followed traditional models of interaction, such as teacher – whole class; teacher – small groups; and teacher – individual student.

In contrast with CG, EG treatment was far more challenging for the students in the group. First the students were introduced to the thirty-two phonemes of the English language employed in the construct of the speech sequence used in the experiment. Symbols of the International Phonetic Alphabet (IPA) were used for labelling the phonemes: nine monothongs [iː], [ɑː], [ɔː], [ɪ], [e], [æ], [ʌ], [ɒ] and [ə]; four diphthongs [eɪ], [aɪ], [aʊ] and [əʊ]; and nineteen consonants [p], [t], [k], [f], [θ], [s], [ʃ], [b], [d], [v], [ð], [z], [l], [r], [j], [w] [m], [n], and [ŋ].

The introduction of these speech sounds represented by IPA symbols seemed to be in line with the visual and kinaesthetic approach towards pronunciation teaching. The ‘materialisation’ of sounds through graphic representations and notions on place and manner of articulation of phonemes are reported to be useful resources in helping enhance L2 learner pronunciation production quality (Acton, 1984; Gilbert, 1993;

Brazil, 1994a, b; Pennington, 1996). While achieving the latter, kinaesthetic sensation, was attempted through training on individual sound production, the redundancy of the triple information in the aforementioned cards (Appendix IV), which was meant to be a mnemonic strategy to accelerate EG learning, considering the short time span of the study, seems to have served the purpose of former.

The next step was an attempt at making EG aware of the *coarticulation* phenomenon; this was done by employing the discovery technique suggested by Underhill (1994). Working at worksheet C, EG students first uttered slowly and discretely the phonemes forming the construct of the words in the list; they were then asked to merge these phonemes; this aimed at having the students utter the words in a 'seamless flow' (Underhill, 1994: 49).

Worksheet D was a consciousness-raising device to give EG rudimentary notions on the intonation systems of prominence, tone, and key as posited by Brazil (1994a, b). A contrastive analysis approach was adopted at the onset of the activity involving this handout. That is, first some utterances in Portuguese were analysed on the basis of Brazil's intonation system, then worksheet D was introduced.

The third activity was a brief repetition session. This time EG, following worksheet E, had access to the translation of the data into Portuguese. The next handout (worksheet F) was assigned as homework. Finally, worksheet G was used in a fifteen-minute mimicry session where EG listened to NSP on the PALE-KT and tried to imitate it. The post-test was then administered for posterior analysis in conjunction with the pre-test.

CHAPTER 4

THE ANALYSIS OF THE QUESTIONNAIRE, THE PRE- AND POST-TESTS

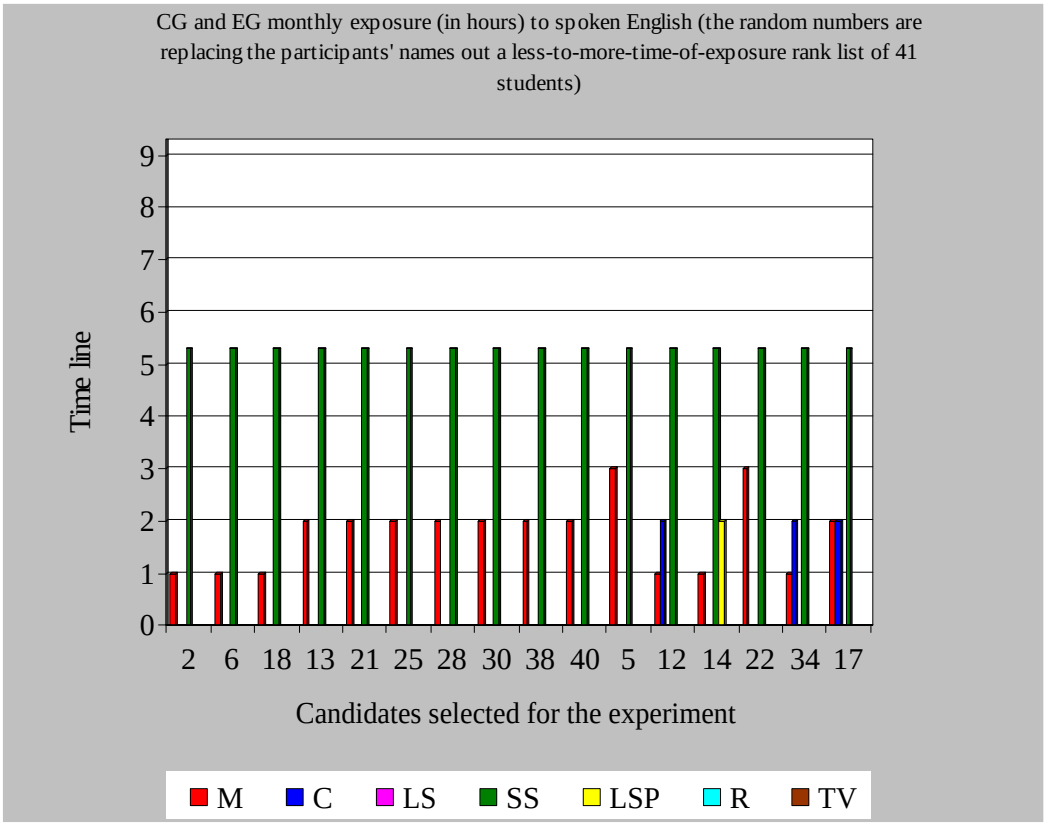
4.1 The questionnaire

The questionnaire, initially administered to the forty-one candidates from which CG and EG were selected, was designed to elicit three pieces of information. The first was the monthly amount of time that the students were exposed to spoken English through seven different media, namely music (M), the cinema (C), language schools (LS), state schools (SS), audio/video recordings with the purpose of learning English (LSP), radio (R) and television (TV) programmes (Figure 1; see also Table 1 in Appendix V). The second was the students' attitude towards learning English. This was attempted through a set of very simple questions (Figure 2; see also Table 2 in Appendix V). The third elicitation was the importance the students attached to achieving native-like pronunciation of a given target language and their disposition to participate in the experiment (Figure 3; see also Table 3 in Appendix V).

By having the candidates answer the first part of the questionnaire, the objective was to choose students having as little exposure to spoken English as possible. Thus, candidates having less that 10.3-hour (or a maximum of 22 per cent of the total hours of exposure of all candidates) monthly exposure participated in the experiment (Table 1, in Appendix V), since the rate range and the media through which these students were exposed to spoken English did not represent significant variables in the study, as it was confirmed afterwards by the pre-test results (Table 6).

The answers to the second part of the questionnaire revealed interesting facts about the candidates' attitudes and motivations towards learning English. For one thing, although ninety-five per cent of these students expressed the desire to learn English, the need to do so seems to be restricted to basically being able to be successful in university entrance and/or proficiency examinations (88%), and for increasing their chances in the work market (85%).

Figure 1

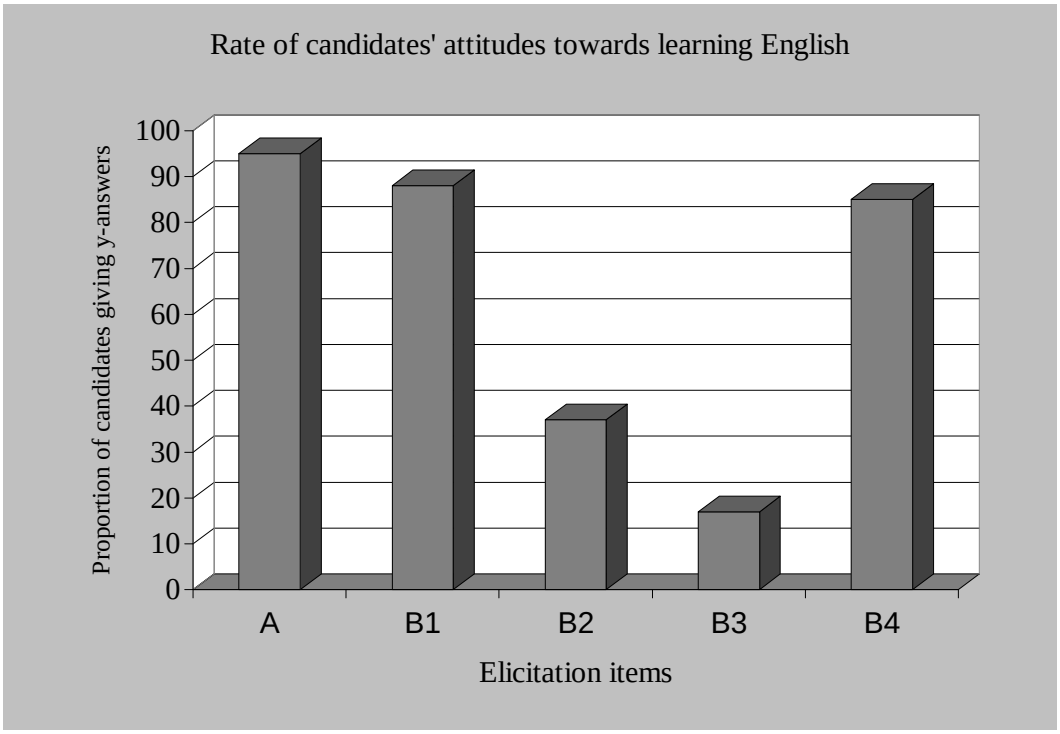


For another thing, thirty-seven per cent of the respondents said they need English to be able to understand songs and films; but only a few of them (17%) expressed the necessity to learn English to read publications (Figure 2; see also Table 2 in Appendix V).

Perhaps the reason for the respondents' little interest in learning English for reading publications demonstrated in Figure 2 is corroborative evidence that the celebrated '*crise da leitura*' (reading crisis) in Brazil is generated much more by poor socioeconomic conditions and the inefficiency of the educational system of this country than by the dearth of reading materials and readers', for instance (Martins, 1982: 27).

For estimating the value candidates attached to good pronunciation when learning an L2, the students were asked whether pronunciation accuracy or success in communication, regardless of faulty pronunciation, was top priority for them. Ninety per cent of the students responded that they would rather display good pronunciation. Similarly, when asked if they would like to achieve native-like pronunciation, eighty-five per cent of the respondents answered favourably.

Figure 2



Symbols and terms:

A = I need to learn English

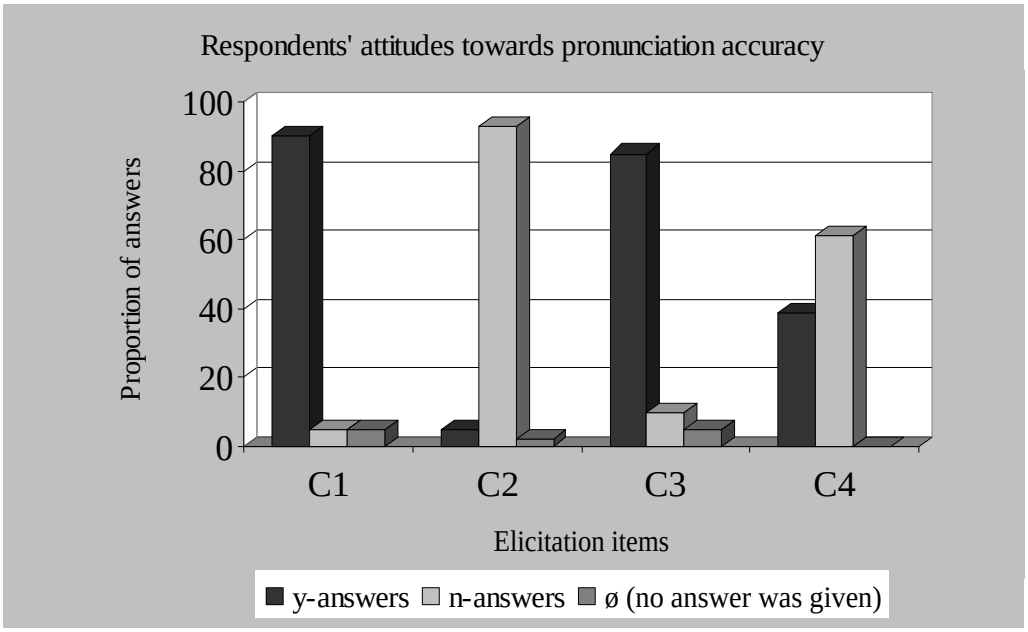
Reasons for learning English:

B1 = to take university entrance / proficiency examinations
B2 = to understand songs / films
B3 = to read publications
B4 = for my future career

Paradoxically, however, only thirty-nine per cent of the respondents volunteered to participate in the experiment on FPT (Figure 3; see also Table 3 in Appendix V).

Importantly, in compliance with the National Research Act of 1974 (Seliger and Shohamy, 1989:196), candidates who gave an n-answer to C4 were not selected for the experiment despite high tally of y-answers and /or little exposure to English. Apart from that, candidates tallying a minimum of three y-answers in section two of the questionnaire (Appendix I) were assigned to the experimental and control groups.

Figure 3



Symbols and terms:

C1 = In my view, pronunciation accuracy is top priority when learning an L2.
C2 = In my view, communicability, despite faulty pronunciation, is top priority when learning an L2.
C3 = I would like to achieve native-like pronunciation of an L2.
C4 = I would volunteer to participate in an experiment on English pronunciation teaching.

Ultimately, as far as the questionnaire is concerned, the choice of CG and EG participants was made essentially on the basis of candidates' answers to the first section and their disposition to join the experiment, which is recorded in the third section. Apparently, most of the respondents' answers to other items of this section and to all

items of the second section would not compromise the research findings were the participants in the experiment chosen based solely on them.

4.2 Independent raters' assessment of the pre- and post-tests

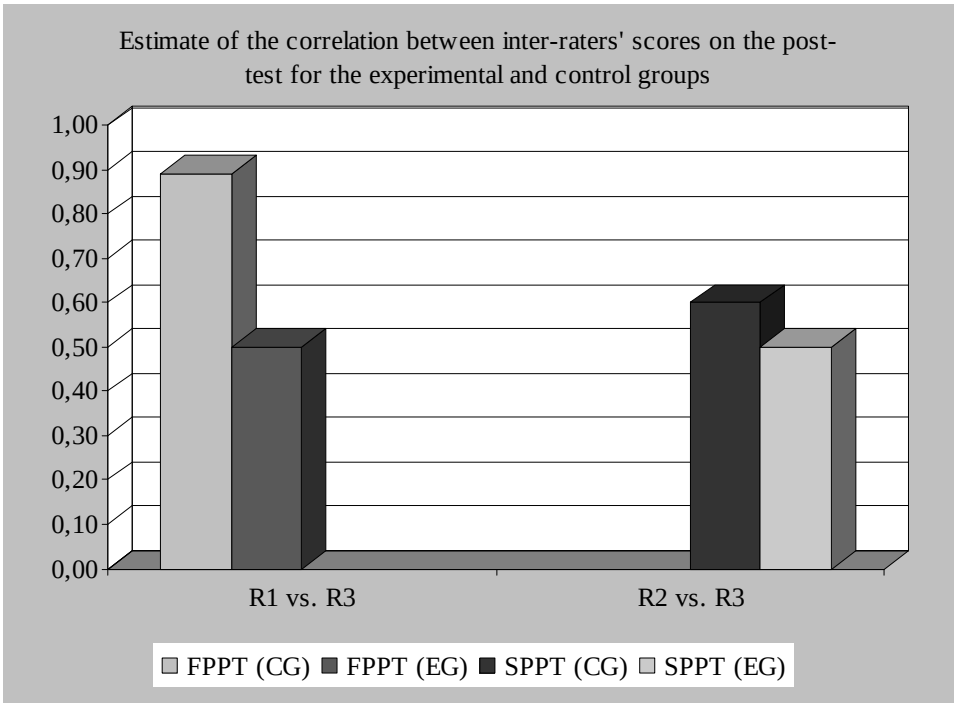
Three raters assessed CG and EG performance on both the pre- and post-test: one American teacher of English (R1), one English painter (R2), and one English-Guyanese teacher of English (R3). However, while R1 assessed only the first part of the pre- and post-tests (the reading of the list of words and phrases) and R2 only the second part of both tests (the reading of TX), R3 assessed both parts of the tests. This is the reason why there is one application of the t test for each part of the tests, as shown in Tables 6 and 8. Furthermore, these assessments were based on the scales in Table 4 (Appendix V).

The estimate of the inter-rater reliability was calculated by the formula:

$$r = \frac{n(\sum XY) - (\sum X)(\sum Y)}{\sqrt{[n\sum X^2 - (\sum X)^2][n\sum Y^2 - (\sum Y)^2]}}$$

The calculation of this reliability indicates that only in two occasions the raters' scorings correlate highly. (1) r = .83 (in R1 and R3's sets of scores for the first part of the test) and (2) r = .72 (in R2 and R3's sets of scores for the second part of the test) on the pre-test administered to the control group (Table 6). Furthermore, only sixty-eight percent of the variation found between R1 and R3's scorings for the experimental group on the first part of the pre-test was reliable (r = .68). Additionally, the correlation between R2's and R3's scorings on the second part of this test was zero percent (r = .0) (Table 6). Figure 4 shows that, except for CG scores on the reading of the word list (r = 0.89), the correlation between the scores given by all three raters is very low for both groups on the post-test.

Figure 4



Symbols and terms:

FPPT (CG) = First part of the post-test administered to the control group

FPPT (EG) = First part of the post-test administered to the experimental group

SPPT (CG) = Second part of the post-test administered to the control group

SPPT (EG) = Second part of the post-test administered to the experimental group

4.3 The statistical analysis of the tests

The statistical analysis of the pre- and post-test recordings by CG and EG members was made according to conventional statistics criteria (Woods et al., 1986; Brown, 1988). Because of lack of empirical evidence to support directionality, null hypotheses were adopted. Moreover, the t statistic was applied to test the hypotheses (Table 5 in Appendix V shows critical values of t, an adaptation from Fisher and Yates, 1963, cited in Brown, 1988) and the alpha decision level was established at $\alpha < .01$, nondirectional.

Brown's (1988) practical examples on the principle of dependency were most useful for establishing the independent variable (CG or EG members) and the dependent variable

(participants' pronunciation production quality, as reflected by their scores in the pre- and post-tests) contained in this study.

The levels of significance between the dependent- and independent-samples means were estimated by this t-test formula:

$$t = \frac{X_1 - X_2}{\sqrt{\frac{S^2}{N_1} + \frac{S^2}{N_2}}}$$

The statistic symbols and terms used in Tables 6-8 and 10:

X_1 = Mean for the control group
X_2 = Mean for the experimental group
S_1 = Standard deviation for the control group
S_2 = Standard deviation for the experimental group
N_1 = Number of participants in the control group
N_2 = Number of participants in the experimental group
df = Degrees of freedom
t_{obs} = The observed statistic
t_{crit} = The critical value for the observed statistic.

4.3.1 The pre-test: Besides establishing the initial level of the participants, in terms of their familiarisation with the pronunciation of the TL words involved in the experiment, the scores of the pre-test were used for comparison with those of the post-test as an attempt to identify any possible score improvement within the same sample. Table 6 shows the scores of CG and EG members per rater.

Table 6

Assessment of the pre-test administered to CG and EG members: reading of the list of words and phrases							
R1				R3			
CG member	CG Mean score	EG member	EG Mean score	CG member	CG Mean score	EG member	EG Mean score
12	2.1	2	20	12	43	2	26
13	18.2	5	32.4	13	45	5	61
14	45.5	6	24.8	14	73	6	54
17	41.2	22	23.6	17	63	22	48
18	25.8	25	28.8	18	57	25	52
21	20.6	34	33.9	21	60	34	59
28	12.7	38	31.8	28	59	38	41
30	19.4	40	28.2	30	52	40	52
R1 $X_1 = 23.19$ $X_2 = 27.94$ $S_1 = 14.29$ $S_2 = 4.82$ $N_1 = 8$ $N_2 = 8$ df = 14 $t_{obs} = 0.891$ $t_{crit} = 2.977$ ($p < .01$)				R3 $X_1 = 56.50$ $X_2 = 49.13$ $S_1 = 9.77$ $S_2 = 11.22$ $N_1 = 8$ $N_2 = 8$ df = 14 $t_{obs} = 1.401$ $t_{crit} = 2.977$ ($p < .01$)			
Assessment of the pre-test administered to CG and EG members: reading of TX							
R2				R3			
CG member	CG Mean score	EG member	EG Mean score	CG member	CG Mean score	EG member	EG Mean score
12	7.5	2	30	12	7.5	2	14.5
13	12.5	5	25	13	12.5	5	18

14	17.5	6	27.5	14	15.5	6	33
17	17.5	22	20	17	15	22	36
18	17.5	25	20	18	15	25	24
21	10	34	22.5	21	15	34	33.5
28	12.5	38	20	28	15	38	17
30	15	40	15	30	15	40	17.5
R2 X_1 = 13.75 X_2 = 22.50 S_1 = 3.78 S_2 = 4.82 N_1 = 8 N_2 = 8 df = 14 t_{obs} = 4.032 t_{crit} = 2.977 (p < .01)				R3 X_1 = 13.81 X_2 = 24.19 S_1 = 2.71 S_2 = 8.72 N_1 = 8 N_2 = 8 df = 14 t_{obs} = 3.214 t_{crit} = 2.977 (p < .01)			

Although there is a marked difference between the scoring of R1 and R3 in the first part of the pre-test, the results per rater strongly indicate that the difference between the means for CG and EG occurred by chance alone ($t_{obs} < t_{crit}$ in both R1 and R3). In other words, in the initial stage, both groups were at the same level regarding the pronunciation of the English words used in the experiment. Nevertheless, R2 and R3's assessment of the second part of the pre-test lead to the conclusion that EG members displayed some advantage over CG members in terms of TL pronunciation both at the segmental and suprasegmental levels ($t_{obs} > t_{crit}$ in both R2 and R3's assessment). Despite the consistency between sample means and t test results, R2 and R3's assessment of this part of the test is inconsistent with that of the first part.

4.3.2 The post-test: The comparison between the independent-samples means calculated from the post-test was fundamental for testing two hypotheses: (1) whether any difference in the means for CG and EG had occurred by chance alone (H_o), or if (2) it

was due to the treatments the groups received (H_1). To this end, the t statistic was used (Table 7).

The results indicate that H_o had to be accepted, since in both parts of the test $t_{obs} < t_{crit}$ (Table7).

Table 7

Assessment of CG and EG post-tests: reading of the list of words and phrases							
R1				R3			
CG Students	CG Mean score	EG Students	EG Mean score	CG Students	CG Mean score	EG Students	EG Mean score
12	7	2	23	12	43	2	38
13	26,4	5	35,8	13	48	5	65
14	63,3	6	31,2	14	83	6	61
17	54,2	22	26,4	17	73	22	59
18	38,8	25	32,4	18	58	25	59
21	39,4	34	41,5	21	72	34	56
28	12,7	38	34,5	28	55	38	51
30	24,8	40	29,7	30	45	40	52
R1 $X_1 = 33.33$ $X_2 = 31.81$ $S_1 = 19.42$ $S_2 = 5.72$ $N_1 = 8$ $N_2 = 8$ df = 14 $t_{obs} = 0.212$ $t_{crit} = 2.977$ ($p < .01$)				R3 $X_1 = 59.63$ $X_2 = 55.13$ $S_1 = 14.77$ $S_2 = 8.31$ $N_1 = 8$ $N_2 = 8$ df = 14 $t_{obs} = 0.75$ $t_{crit} = 2.977$ ($p < .01$)			

Assessment of the post-test administered to CG and EG members: reading of TX							
R2				R3			
CG Students	CG Mean score	EG Students	EG Mean score	CG Students	CG Mean score	EG Students	EG Mean score
12	52,2	2	60	12	28	2	27
13	47,5	5	57,5	13	21	5	34,5
14	67,5	6	57,5	14	54,5	6	24
17	52,5	22	62,5	17	44,5	22	24,5
18	47,5	25	50	18	37	25	22,5
21	50	34	65	21	52,5	34	35
28	50	38	45	28	36	38	25,5
30	50	40	45	30	29	40	23,5
R2 $X_1 = 52.15$ $X_2 = 55.31$ $S_1 = 6.47$ $S_2 = 7.73$ $N_1 = 8$ $N_2 = 8$ df = 14 $t_{obs} = 0.888$ $t_{crit} = 2.977$ ($p < .01$)				R3 $X_1 = 37.81$ $X_2 = 27.06$ $S_1 = 11.95$ $S_2 = 4.93$ $N_1 = 8$ $N_2 = 8$ df = 14 $t_{obs} = 2.352$ $t_{crit} = 2.977$ ($p < .01$)			

4.3.3 A within-groups comparison of the sample mean scores:

For the within-groups comparison of the students' scores, an important factor that has been taken into consideration is the dependence of the groups, because the comparison now was between the pre- and post-test means within the same group, which was submitted to a particular treatment. Thus, as one of the assumptions to the application of the basic t test is that of independence between the groups involved, the students' tests were divided randomly into two groups within each sample, as suggested by Brown

(1988:165). One disadvantage of this, in this specific study, was that the samples were reduced to four students in each group (Table 8)

Table 8

Comparison of within-groups means: pre- and post-tests (reading of the list of words and phrases)							
CG[1]				EG[1]			
S	T_a MS	S	T_bMS	S	T_aMS	S	T_bMS
12	22.6	18	48.4	2	23	25	45.7
13	31.6	21	55.7	5	46.7	34	48.8
14	59.3	28	33.9	6	39.4	38	42.8
17	52.1	30	34.9	22	35.8	40	40.9
X_1 = 41.4 X_2 = 43.2 S_1 = 17.17 S_2 = 10.62 N_1 = 4 N_2 = 4 df = 6 t_{obs} = 0.1784 t_{crit} = 3.707 ($p < .01$)				X_1 = 36.23 X_2 = 44.6 S_1 = 9.91 S_2 = 3.45 N_1 = 4 N_2 = 4 df = 6 t_{obs} = 1.6 t_{crit} = 3.707($p < .01$)			
Comparison of within-groups means: pre- and post-tests (reading of TX)							
CG[2]				EG[2]			
S	T_a MS	S	T_bMS	S	T_aMS	S	T_bMS
12	7.5	18	42.3	2	22.3	25	36.3
13	12.5	21	51.3	5	21.5	34	50
14	16.5	28	43	6	30.3	38	35.3
17	16.3	30	39.5	22	28	40	34.3
X_1 = 13.20 X_2 = 44.0 S_1 = 4.22 S_2 = 5.08 N_1 = 4 N_2 = 4				X_1 = 25.53 X_2 = 39.0 S_1 = 4.30 S_2 = 7.40 N_1 = 4 N_2 = 4			

df = 6 t_{obs} = 9.34 t_{crit} = 3.707 (p < .01)	df = 6 t_{obs} = 3.15 t_{crit} = 3.707(p < .01)

Symbols and terms:

S = Student

T_aMS = Pre-test mean score

T_bMS = Post-test mean score

[1] = Means of scores given by R1 and R3

[2] = Means of scores given by R2 and R3

The objective of applying the t test here was to verify whether (H_1) or not (H_o) there was any significant improvement in the students' scores after the treatment administered to each group.

In the reading of words and phrases, H_o had to be accepted for both groups, since $t_{obs} < t_{crit}$ (CG: 0.1784 < 3.707; EG: 1.6 < 3.707). However, the observed statistic was much greater than the critical one for the control group in the reading of TX: $t_{obs} > t_{crit}$ (CG: 9.34 > 3.707; EG: 3.15 < 3.707). In other words, although H_1 had to be consistently rejected for the experimental group, it had to be accepted in the comparison between the within-group means of the second part of the test for the control group.

4.4 Comparing the NSP systems of intonation with those of CG and EG members

Apart from the assessment made by the independent raters, it was deemed necessary to verify the frequency with which DI instances (as described by David Brazil) appeared in the speeches of the participants. This was made by the researcher himself.

The assessment consisted of a comparison, at the suprasegmental level, between the speech of the native-speaker parameter used in the experiment and that of the groups involved. To this end, the researcher used the adaptation of Cauldwell and Allan's

(1998: 46) analysis of the NSP speech sequence as a parameter (Worksheet D, in Appendix III).

From the NSP speech sequence on the PALE-KT, it was possible to tally the following instances of the intonation systems of tone, prominence and key, as established by the DI approach (Brazil, 1994a, b): 12 tone units (TU); 5 onset prominences (OP); 12 tonic syllables (TS); 8 falling tones (FT); 1 rising tone (RT); 1 fall-rise tone (FRT) 2 level tones (LT) and 4 high keys (HK) (Table 9).

The objective of this analysis was to determine the frequency with which these instances would occur (exactly as they occur in the NSP speech) in the speeches of CG and EG members when reading TX in the post-test. Additionally, it was at first hypothesised that, ultimately, EG would outperform CG because of the notional activities the EG members were engaged in during the treatment that they were given. But a directional analysis could not be used here, since there seems to be no evidence in the SLA literature for that. In reality, considering the age range of the participants, this hypothesis is opposed by Brown's (1992) suggestion that young learners may achieve better results with imitation activities than with analytical ones. However, if the claim that benefits of imitation drills are likely to be dependent on learner's aptitude for oral mimicry (Kenworthy, 1987), then a balance can be struck here.

In any case, at least two hypotheses had to be tested. The first (H_o), being that there would be no significant difference in frequency between the two groups vis-à-vis the NSP DI instances; and the second (H_1), that either EG or CG speeches would display significantly higher frequency of the DI instances found in the NSP speech.

The verification of these hypotheses was obtained through the following steps. First NSP was multiplied by 8, as shown in Table 9 – the frequencies of each category in the speech of the imaginary NSPs being exactly the same. These frequencies were then compared with the frequency with which the NSP categories appeared in the speeches of CG and EG members (Table 10).

Table 9

The frequency of DI instances in the speech of 8 imaginary NSPs									
NSP	Categories								Row total
	TU	OP	TS	FT	RT	FRT	LT	HK	
1	12	5	12	8	1	1	2	4	44
2	12	5	12	8	1	1	2	4	44
3	12	5	12	8	1	1	2	4	44
4	12	5	12	8	1	1	2	4	44
5	12	5	12	8	1	1	2	4	44
6	12	5	12	8	1	1	2	4	44
7	12	5	12	8	1	1	2	4	44
8	12	5	12	8	1	1	2	4	44
Column total	96	40	96	64	8	8	16	32	360

Symbols and terms:

TU = Tone unit OP = Onset prominence TS = Tonic syllable

FT = Falling tone RT = Rising tone FRT = Fall-rise tone

LT = Level tone HK = High key

Table 10 shows that, despite the substantial difference in the frequency with which some categories appear in the speech of some of the subjects, the difference between the total frequency of the NSP DI instances appearing in the speech of each sample was very small, thus insignificant (283 instances in the EG speech against 285 in the CG speech). This assertion is supported by the t test.

To use the t statistic with this new set of data, two adaptations were made to its syntax: (1) the row totals of the frequency of each category were regarded as total scores (as in a discrete-point test) and (2) the frequency of the NSP categories the maximum points CG and EG members could score (Tables 9 and 10). The sample means were X_1 = 35.63 and X_2 = 35.38 (CG and EG) respectively. S_1 = 5.63 and S_2 = 6.93 were the estimated sample standard deviations; and the observed statistic was evaluated as t_{obs} =

0.079 with 14 df. The decision level established at $\alpha < .01$ confirmed that there was no significant difference between the total frequency of the NSP categories appearing in the speeches of CG and EG members, since the observed statistic was less than the critical statistic ($0.079 < 2.977$), as can be verified in Table 5 (Appendix V).

Table 10

Frequencies of NSP DI instances in the speeches of CG and EG members

CG members	Categories								Row total	EG members	Categories								Row total
	TU	OP	TS	FT	RT	FRT	LT	HK			TU	OP	TS	FT	RT	FRT	LT	HK	
12	8	5	12	7	1	0	2	4	39	2	11	5	11	1	0	0	2	3	33
13	6	5	11	2	0	0	2	1	27	5	11	5	10	8	1	1	2	4	42
14	11	5	12	8	1	0	2	4	43	6	12	5	11	8	1	1	2	3	43
17	9	4	11	7	0	0	2	4	37	22	12	5	11	8	1	1	2	3	43
18	10	4	12	1	0	0	2	0	29	25	7	4	11	4	1	0	2	1	30
21	9	5	11	6	0	0	2	3	36	34	8	4	9	0	0	0	2	1	24
28	10	5	11	8	1	0	2	4	41	38	5	3	12	7	0	0	2	3	32
30	6	5	10	7	0	0	2	3	33	40	8	5	11	7	1	0	2	2	36
Column total	69	38	90	46	3	0	16	23	285	Column total	74	36	86	43	5	3	16	20	283

$X_1 = 35.63$

$S_1 = 5.63$

$N_1 = 8$

df = 14

$t_{obs} = 0.079$

$t_{crit} = 2.977$ ($p<.01$)

$X_2 = 35.38$

$S_2 = 6.93$

$N_2 = 8$

Symbols and terms:

TU = Tone unit OP = Onset prominence TS = Tonic syllable FT = Falling tone

RT = Rising tone FRT = Fall-rise tone LT = Level tone HK = High key

CHAPTER 5
THE RESULTS REVISITED AND SOME CONCLUDING REMARKS

Ultimately, the statistical analysis of the mean scores achieved by the experimental and control groups in the post-test should serve the purpose of testing three hypotheses:

H_o: There is no significant difference between the means for the EG and CG members.

H_1: The mean for the EG members is significantly higher than that for the CG members.

H_2: The mean for the EG members is significantly lower than that for the CG members.

Clearly, the t statistic obtained from the post-test indicated that the null hypothesis had to be accepted. That is, there was no significant difference between the means for the experimental and the control groups. Apparently, this means to say that both an approach towards FPT based solely on imitation of parameters of TL speakers or on the awareness of the TL sound and intonation systems with no emphasis on repetition drills will yield similar results in the attempt of enhancing the level of accuracy and intelligibility of L2 beginning learners' pronunciation production. However, some factors seem to dismiss the parallel between these approaches based on the findings of this study as inconclusive. Some of these considerations relate to the conditions under which the experiment was conducted and others to the assessment of the pre- and post-tests.

5.1 Factors related to the context of the investigation

Added to the fact that this tentative investigation was undertaken by a novice teacher-researcher, the conditions under which the experiment was conducted posed some important variables. Firstly, because the sessions were held in the afternoon and the classrooms were not equipped with air-conditioning system, the rooms were extremely

hot (+ 36°C on average). Such discomforting temperature in the classroom seems to have prevented the students (and the teacher) focusing continuously on the lesson. Secondly, the gap between sessions appears to have produced a negative effect on the experimental group, precisely because of the consciousness-raising activities in which they were engaged. After the first session, precious time had to be spent on recapitulation before introducing new activities in the two subsequent meetings. Lastly, and perhaps most importantly, a crucial variable seems to be the type of clientele taking part in the experiment.

It is a well-known fact (at least it is the case in Brazil) that, in general, state-school students show little motivation towards learning a foreign language. The reason for this may have to do with a variety of factors ranging from student personal goals to teacher qualification (Brasil, 1999: 147). The fact is that the students who had to do most of the thinking (the EG members, since the activities assigned to the CG members were essentially mechanical) during the experiment sessions were the least interested in undergoing the treatment. Furthermore, students' idle 'chit-chatting' in class, lack of punctuality, and absence (only 62.5% of the students in each group attended all the sessions) were some of the elements evincing the fact that, despite their *de dicto* y-answers elicited with the questionnaire, the participants had not agreed *de facto* to embark on the experiment.

Perhaps, the reproduction of this experiment in a language school, where apparently the clientele is more motivated to learning the foreign target language, would yield more conclusive results. But it is somehow difficult to implement such an experiment in an institution where students pay for their schooling, and this was one of the reasons why a state school was chosen in the first place.

5.2 Factors related to the assessment of the pre- and post-tests

The independent raters' assessment of the pre- and post-tests also posed crucial variables to the study. Seemingly, these raters were given a clear task. That is, they were asked to determine the degree of accuracy and intelligibility of the subjects' speeches

recorded on an audiocassette based on a native-speaker parameter which, in this case, was the raters themselves. To this end, they had to follow the scales in Table 4 (Appendix V). This has not prevented them, however, from producing low correlated scores for the pre- and post-tests.

In the pre-test, EG displayed some advantage over CG in the reading of TX. The difference between the means for the two groups based on R2's assessment ($X_1 = 13.75$; $X_2 = 22.50$) (Table 6) is significant at the one per cent level ($t_{obs} = 4.032$ is greater than $t_{crit} = 2.977$ at $p < .01$). Apparently, this is consistent with R3's assessment of this part of the same test ($X_1 = 13.81$; $X_2 = 24.19$, where $t_{obs} = 3.214$ is greater than $t_{crit} = 2.977$ at $p < .01$). Nonetheless, the great variance between the inter-rater correlation coefficients seems to indicate that conclusions based on the raters' assessment of the pre- and post-tests should be treated with caution. This is clearly the case in the estimate of r from the scores for the reading of TX in the pre-test. While R2 and R3 correlation coefficient is relatively high for CG ($r = 0.72$), it drops drastically in the assessment of EG for the same part of the test ($r = 0.0$).

The insignificance of the difference between the means for the experimental and the control groups in the second part of the post-test ($t_{obs} < t_{crit}$ at $p < .01$) established by the t statistic also seems to be compromised by the unreliability of scores across raters. The correlation coefficients, estimated from this part of the test, are very low ($r = 0.60$ for CG; $r = 0.50$ for EG) (Figure 4). This is further confirmed by the variation found between R2 and R3's sets of scores. R2 produced, on average, lower mean scores for CG and higher for EG ($X_1 = 52.15$; $X_2 = 55.31$), whereas R3 produced otherwise ($X_1 = 37.81$; $X_2 = 27.06$) (Table 7). Moreover, the inconsistency of judgement of the raters is also evident in the assessment of the list of words and phrases in both the pre-test ($r = 0.83$ for CG; $r = 0.68$ for EG), and the post-test ($r = 0.0$ for CG; $r = 0.50$ for EG).

In view of such discrepancy in raters' assessments, one may wonder, for instance, if the confirmation of the null hypothesis ($t_{obs} < t_{crit}$ at $p < .01$) in both parts of the post-test administered to CG and EG was due to the fact that both treatments had similar effect on

the participants, or to inter-rater low correlation. This, in turn, elicits at least three other questions: (1) was inter-rater low correlation a consequence of the raters' lack of expertise in this kind of assessment, (2) the interference of their accent, or (3) was the quality of the recordings a major variable?

In hindsight, I claim that all three aspects had a bearing on the scores produced by the raters. For one thing, apart from not being oral test specialists, these raters speak English with noticeably different accents, diverging somehow from that of the NSP used in the experiment. While the accent of this NSP was closer to that of the English painter, it was very different from those of the Californian and Guyanese teachers of English. For another thing, the fact that the CG and EG members spoke with no, or little pause during the recording session, added to extraneous background noise on the tape, seem to have impaired the raters' judgement.

It is important to point out that, other things being equal, the inter-rater low correlation in this study may evince the fact that estimating examinees' language ability can be challenging, even when standardized scales are used, because of the subjectivity of the task (Bachman, 1990: 37-38). Thus, subjectivity may be another important variable affecting the scores produced by R1, R2 and R3. Consequently, even considering that the t observed is less than the t critical in both parts of the post-test for both groups, thus confirming H_o, the conclusion that both treatments would have similar effects in beginning learners of English would be an untenable one.

5.3 The NSP DI instances used in the speeches of the CG and EG members

The results of the comparison of the frequency with which the NSP DI instances occurred in the speeches of the CG and EG members seem to indicate that, despite being statistically insignificant, the observed difference in frequency is meaningful. Contrary to what had been hypothesised, in retrospect, it seems that CG members should have displayed more similarities with NSP in terms of intonation because of their longer period of exposure to the NSP speech on the PALE-KT. An implication of this seems to be the fact that, even achieving the same results by applying either approach, activities

which help learners develop their thinking process – the fifth skill, according to Ur (1981:13) – appear to be more attractive, from a formative perspective, than mechanical ones.

Another aspect that need be considered concerning the analysis of the intonation systems of prominence, tone and key in the speeches of the participants is the fact that the students had to read a text, which may account for the excess of level tones in their speeches (Appendix VI). Brazil (1994b: 91) posits that, when reading aloud, the reader may decide to focus exclusively on form in detriment of meaning. This kind of reading, which normally lengthens tone units to the full capacity of the reader's ability to utter words at a time, renders a great deal of unnaturally-used level tones. Koren echoes the awareness of that by pointing out that pronunciation tests involving free speech 'are a better arbiter of normal pronunciation by a second language learner, since it makes more sense to assume that the learner uses the language for speaking rather than for reading aloud' (Koren, 1995: 388).

One final thought. Although a number of variables have prevented definite conclusions on one direction or the other vis-à-vis the treatments administered to the control and experimental groups, the investigation has taught this novice teacher-researcher various important lessons; perhaps the most important of which are that, after painstaking work, the researcher is left with many unanswered questions, and that the conclusions drawn by him or her may not do justice to the results of the investigation. This seems to be well expressed in these lines of Carroll's *Alice in Wonderland* (quoted in Seliger and Shohamy, 1989: 243):

> 'It seems very pretty,' she said when she had finished it, 'but it's *rather* hard to understand!'(You see, she didn't like to confess even to herself, that she couldn't make it out at all.) 'Somehow it seems to fill my head with ideas – only I don't exactly know what they are! …'

APPENDIX I

The questionnaire

1. Write an average of the monthly exposure (in minutes/hours) you have to spoken English through these media.

   a) Music (_____)

   b) Cinema (_____)

   c) Language school (_____)

   d) State school (_____)

   e) Audio/video recordings for studying English (_____)

   f) Radio (_____)

   g) Television (_____)

2. Check the statements which express your motivation(s) towards learning English (if you check the 'No' box in a), don't check any other boxes in this section).

   a) I need to learn English (□ Yes; □ No).

   b) Reasons why I need to learn English

      - to take university entrance / proficiency examinations (□ Yes; □ No).
      - to understand songs / films (□ Yes; □ No).
      - to read publications (□ Yes; □ No).
      - for my future career (□ Yes; □ No).

3. How important is pronunciation to you? Check the 'yes' or 'no' boxes.

   a) In my view, pronunciation accuracy is top priority when learning an L2 (□ Yes; □ No).

   b) In my view, communicability despite faulty pronunciation is top priority when learning an L2 (□ Yes; □ No).

   c) I would like to achieve native-like pronunciation (□ Yes; □ No).

   d) I would volunteer to participate in an experiment on English pronunciation teaching (□ Yes; □ No).

APPENDIX II

The reading test
(This test was administered to all 41 candidates, and for post-testing the EG and CG members)

Among the speakers at today's National Transport Conference will be Mister Tom Williams. Mister Williams, I understand that having been a keen, not to say fanatical, motorist for most of your life, you're now having second thoughts? (Brazil, 1994b: 114)

a
among
at
be
been
Conference
fanatical
for
having
I
keen
life
Mister
most
motorist
National
not
now
of
say
second
speakers
that
the
thoughts
to
today's
Tom Williams
Transport
understand
will
your
you're

APPENDIX III

Worksheet A

A = um, uma
AMONG = entre
AT = na, no
BE = ser, estar
BEEN = sido, estado
CONFERENCE = conferência
FANATICAL = fanático
FOR = por (período de tempo)
HAVING = tendo
I = eu
KEEN = entusiasmado
LIFE = vida
MISTER = senhor
MOST = a maior parte
MOTORIST = motorista
NATIONAL = nacional
NOT = não
NOW = agora
OF = de
SAY = dizer
SECOND = segundo
SPEAKERS = palestrantes
THAT = que
THE = o, a, os, as
THOUGHTS = idéias, pensamentos
TO = para
TODAY'S = de hoje
TOM = Tom
TRANSPORT = transporte
UNDERSTAND = entender, compreender
WILL = verbo auxiliar também usado para falar do futuro.
WILLIAMS = Williams
YOUR = seu, sua, seus, suas
YOU'RE = você está, você é

Worksheet B

Among the speakers at today's National Transport Conference will be Mister Tom Williams. Mister Williams, I understand that having been a keen, not to say fanatical, motorist for most of your life, you're now having second thoughts?

(Brazil, 1994b: 114)

Entre os palestrantes da Conferência Nacional de Transporte de hoje estará o Senhor Tom Williams. Sr. Williams, eu percebo que, tendo sido um motorista entusiasmado, para não dizer fanático, a maior parte de sua vida, o Sr. está mudando de idéia agora?

Worksheet C

Level 1	Level 2	Standard English spelling
/ ə…/	/ ə/	A
/ ə…m…ʌ…ŋ…/	/ ə'mʌŋ/	A**MONG**
/ æ…t…/ / ə…t…/	/æt/ /ət/	AT
/ b…iː…/	/biː/	BE
/ b…ɪ…n/	/bɪn/	BEEN
/ k…ɒ…n…f…ə…r…ə…n…s…/	/ 'kɒnfərəns/	**CON**FERENCE
/ f…ə…n…æ…t…ɪ…k…ə…l…/	/fə'nætɪkəl/	FA**NA**TICAL
/ f…ɔː…/ / f…ə…/	/fɔː/ / / fə/	FOR
/ h…æ…v…ɪ…ŋ/	/ 'hævɪŋ/	**HA**VING
/ a…ɪ…/ /ə…ɪ…/	/aɪ/ /əɪ/	I
/ k…iː…n/	/kiːn	KEEN
/ l…a…ɪ…f…/	/laɪf/	LIFE
/ m…ɪ…s…t…ə…/	/ 'mɪstə/	**MIS**TER
/ m…ə…ʊ…s…t…/	/məʊst/	MOST
/ m…ə…ʊ…t…ə…r…ɪ…s…t…/	/ 'məʊtərɪst/	**MO**TORIST
/ n…æ…ʃ…n…ə…l…/	/ 'næʃnəl/	**NA**TIONAL
/ n…ɒ…t…/	/nɒt/	NOT
/ n…a…ʊ…/	/naʊ/	NOW
/ ɒ…v…/ / ə…v…/	/ ɒv/ / əv/	OF
/ s…e…ɪ…/	/seɪ/	SAY
/ s…e…k…n…d…/	/ 'seknd/	**SEC**OND
/ s…p…iː…k…ə…z…/	/ 'spiːkəz/	**SPEA**KERS
/ ð…æ…t…/	/ðæt/	THAT
/ ð…ə…/	/ðə/	THE
/ θ…ɔː…t…s…/	/ θɔːts/	THOUGHTS
/ t…ə…/	/tə/	TO
/ t…ə…d…e…ɪ…z…/	/tə'deɪz/	TO**DAY'S**
/ t…ɒ…m…/	/tɒm/	TOM
/ t…r…ɑː…n…s…p…ɔː…t…/	/ 'trɑːnspɔːt/	**TRANS**PORT
/ ʌ…n…d…ə…s…t…æ…n…d…/	/ ʌndə'stænd/	UNDER**STAND**
/ w…ɪ…l…/	/wɪl/	WILL
/ w…ɪ…l…j…ə…m…z…/	/ 'wɪljəmz/	**WI**LLIAMS
/ j…ɔː…/ / j…ə…/	/jɔː/ / jə/	YOUR
/ j…ɔː…/	/jɔː/	YOU'RE

Worksheet D

// ↘ aMONG the SPEAkers //

// → at toDAY'S //

// ↗ NAtional TRANSport conference //

// ↘ will be mister TOM WILLiams //

// ↘ ↑ MISter WILLiams //

// ↘ i underSTAND that //

// → HAving been a //

// ↘ KEEN //

// ↘ NOT to say //

// ↘ fa ↑ NAtical motorist //

// ↺ for MOST of your life //

// ↘ you're now having ↑ SECond ↑ THOUGHTS //

Worksheet E

Pronunciation	Standard English spelling	Portuguese Translation
/ə/	A	um, uma
/əˈmʌŋ/	A**MONG**	entre
/æt/ /ət/	AT	na, no
/biː/	BE	ser, estar
/bɪn/	BEEN	sido, estado
/ˈkɒnfərəns/	**CON**FERENCE	Conferência
/fəˈnætɪkəl/	FA**NA**TICAL	fanático
/fɔː/ //fə/	FOR	por (período de tempo)
/ˈhævɪŋ/	**HA**VING	tendo
/aɪ/ /əɪ/	I	eu
/kiːn	KEEN	entusiasmado
/laɪf/	LIFE	Vida
/ˈmɪstə/	**MIS**TER	senhor
/məʊst/	MOST	a maior parte
/ˈməʊtərɪst/	**MO**TORIST	motorista
/ˈnæʃnəl/	**NA**TIONAL	nacional
/nɒt/	NOT	Não
/naʊ/	NOW	agora
/ɒv/ /əv/	OF	De
/seɪ/	SAY	dizer
/ˈseknd/	**SEC**OND	segundo
/ˈspiːkəz/	**SPEA**KERS	palestrantes
/ðæt/	THAT	que
/ðə/	THE	o, a, os, as
/θɔːts/	THOUGHTS	idéias, pensamentos
/tə/	TO	para
/təˈdeɪz/	TO**DAY'S**	de hoje
/tɒm/	TOM	Tom
/ˈtrɑːnspɔːt/	**TRANS**PORT	Transporte
/ʌndəˈstænd/	UNDER**STAND**	entender, compreender
/wɪl/	WILL	verbo auxiliar também usado para falar do futuro
/ˈwɪljəmz/	**WI**LLIAMS	Williams
/jɔː/ /jə/	YOUR	seu, sua, seus, suas
/jɔː/	YOU'RE	você está, você é

Worksheet F

Fill in the blanks below with words from these two boxes.

FUNK, MAU, NOTA, PRAIA, NAVIO, LEITO, ÁRVORE, CORDA, IOGA, SENTA, XÍCARA, PESA, MANGA, TEIA, CANECA, DATA, LEI, MALOCA, MAR, NETA, VELA, UÍSQUE, FEITA, LETRA, BOTAS, TECLA, CARTEIRA
TODAY, TRANSPORT, TRANSPORT, MOST, MOST, BE, SPEAKERS, FANATICAL, MOTORIST, HAVING, THAT, THOUGHTS, MISTER, MISTER, WILLIAMS, BEEN, YOUR, CONFERENCE, NATIONAL, WILL, AMONG, AMONG, KEEN, KEEN, SECOND, NOW, UNDERSTAND, LIFE, THAT, SAY, YOU'RE, NOT

Word Table

Phonemic symbols (sounds)	Word in Portuguese having a similar sound	Phonemic transcription (Portuguese)	Word in English having a similar sound	Phonemic transcription (English)
/p/	pata	['patə]		/ 'trɑːnspɔːt/
/b/		['bɒtəs]		/biː/
/f/		['feɪtə]		/fə'nætɪkəl/
/v/		['velə]		/ 'hævɪŋ/
/ θ/	não há som equivalente	não há som equivalente		/ θɔːts/
/ð/	não há som equivalente	não há som equivalente		/ðæt/
/s/		['sentə]		/ 'məʊtərɪst/
/z/		['pezə]		/sˈpiːkəz/
/t/		['teɪə]		/məʊst/
/d/		['datə]		/tə'deɪ/
/m/		[mə'lɒkə]		/ 'mɪstə/
/n/		[netə]		/biːn/
/r/		[mar] (no falar caipira)		/ 'kɒnfərəns/
/l/		[leɪ]		/wɪl/
/k/		[kə'nekə]		/kiːn/
/ ŋ/		['maŋgə]		/ ə'mʌŋ/
/ ʃ/		[ʃi'kərə]		/ 'næʃnəl/
/j/		[jɒgə]		/jɔː/
/w/		['wiːski]		/ 'wɪljəmz/
/ ɪ/		['lɪtrə]		/ 'mɪstə/
/e/		['teklə]		/ 'seknd/
/ ə/		[kah'teɪrə]		/ ʌndə'stænd/
/æ/	não há som equivalente	não há som equivalente		/ðæt/
/ ʌ/	não há som equivalente	não há som equivalente		/ ə'mʌŋ/
/ ɒ/		['nɒtə]		/nɒt/
/iː/		[nə'viːjʊ]		/kiːn/
/ ɑː/		['ɑːhvɒri]		/ 'trɑːnspɔːt/
/ ɔː/		['kɔːhdə]		/jɔː/
/eɪ/		[leɪtʊ]		/seɪ/
/aɪ/		['praɪə]		/laɪf/
/aʊ/		/maʊ/		/naʊ/
/ əʊ/	não há som equivalente	não há som equivalente		/məʊst/

Worksheet G

G_1

Among the speakers at today's National Transport Conference will be Mister Tom Williams. Mister Williams, I understand that having been a keen, not to say fanatical, motorist for most of your life, you're now having second thoughts?

(Brazil, 1994b: 114)

Entre os palestrantes da Conferência Nacional de Transporte de hoje estará o Senhor Tom Williams. Sr. Williams, eu percebo que, tendo sido um motorista entusiasmado, para não dizer fanático a maior parte de sua vida, o Sr. está mudando de idéia agora?

G_2

// ↘ aMONG the SPEAkers // → at toDAY'S // ↗ NAtional TRANSport conference //

// ↘ will be mister TOM WILLiams //

// ↘ ↑ MISter WILLiams // ↘ i underSTAND that //

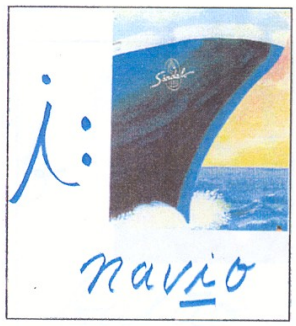
// → HAving been a // ↘ KEEN // ↘ NOT to say // ↘ fa ↑ NAtical motorist //

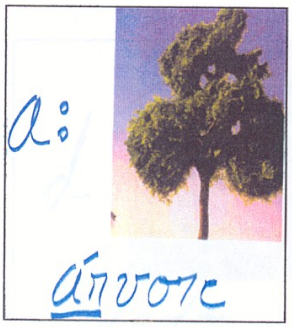
// ↺ for MOST of your life //↘ you're now having ↑ SECond ↑ THOUGHTS //

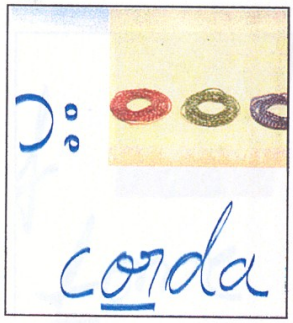
APPENDIX IV

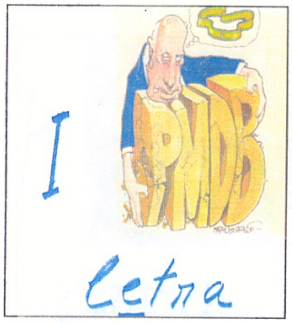
The flashcards

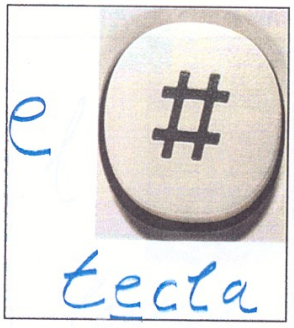
These flashcards were devised for teaching the CG and EG members the English phonemic symbols used in the construct of the speech sequence on the PALE-KT.

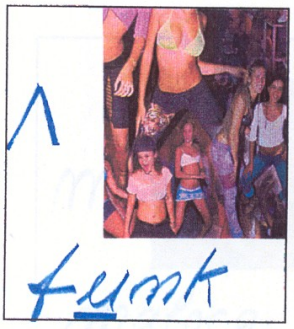


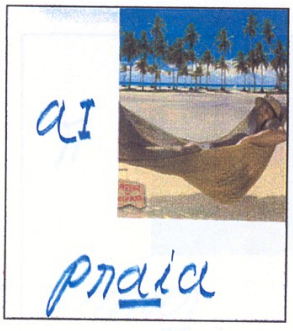












aw

mau

eI

beijo

əʊ

phone

b

balão

d

dedo

f

fome

k

carro

l

louça

m

maloca

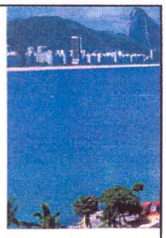
n

nota

p

presente

ɾ



mar

s

sonriso

t

estoyo

v

vicio

ʃ

chave

ŋ

manga

ʒ

mother

θ

think

ʝ

joga

w

wisque

APPENDIX V

Table 1

Monthly exposure (in hours) to spoken English in a sample of 41 candidates for the experiment on FPT (figures in brackets are percentages; = data used in the analysis)									
Student	M	C	LS	SS	LSP	R	TV	Row total	
2	1	0	0	5,3	0	0	0	6,3	1,3
6	1	0	0	5,3	0	0	0	6,3	1,3
18	1	0	0	5,3	0	0	0	6,3	1,3
13	2	0	0	5,3	0	0	0	7,3	1,5
21	2	0	0	5,3	0	0	0	7,3	1,5
25	2	0	0	5,3	0	0	0	7,3	1,5
28	2	0	0	5,3	0	0	0	7,3	1,5
30	2	0	0	5,3	0	0	0	7,3	1,5
38	2	0	0	5,3	0	0	0	7,3	1,5
40	2	0	0	5,3	0	0	0	7,3	1,5
5	3	0	0	5,3	0	0	0	8,3	1,7
12	1	2	0	5,3	0	0	0	8,3	1,7
14	1	0	0	5,3	2	0	0	8,3	1,7
22	3	0	0	5,3	0	0	0	8,3	1,7
34	1	2	0	5,3	0	0	0	8,3	1,7
17	2	2	0	5,3	0	0	0	9,3	1,9
35	3	0	0	5,3	2	0	0	10,3	2,1
10	2	2	0	5,3	2	0	0	11,3	2,3
16	2	0	0	5,3	4	0	0	11,3	2,3
39	4	0	0	5,3	2	0	0	11,3	2,3
11	1	2	0	5,3	4	0	0	12,3	2,5
15	3	0	0	5,3	0	0	4	12,3	2,5
19	1	2	0	5,3	0	0	4	12,3	2,5
37	3	0	0	5,3	0	0	4	12,3	2,5
41	1	2	0	5,3	0	0	4	12,3	2,5
23	7,5	0	0	5,3	0	0	0	12,8	2,6
20	2	2	0	5,3	0	0	4	13,3	2,7
36	4	4	0	5,3	0	0	0	13,3	2,7
8	3	0	0	5,3	6	0	0	14,3	2,9
31	1	4	0	5,3	4	0	0	14,3	2,9
24	1	4	0	5,3	4	0	0	14,3	2,9
4	7,5	0	0	5,3	2	0	0	14,8	3,0
27	7,5	2	0	5,3	0	0	0	14,8	3,0
7	7,5	0	0	5,3	2	0	0	14,8	3,0
9	7,5	0	0	5,3	2	0	0	14,8	3,0
29	4	2	0	5,3	4	0	0	15,3	3,1
33	4	2	0	5,3	4	0	0	15,3	3,1
32	1	2	0	5,3	4	0	4	16,3	3,3
1	3	4	0	5,3	0	0	4	16,3	3,3
26	7,5	0	0	5,3	2	0	4	18,8	3,9
3	7,5	2	0	5,3	8	0	4	26,8	5,5
Column total	124 (25)	42 (8,6)	0	228,1 (47)	58 (12)	0	36 (7,4)	487,6	100

Table 2

Rate of candidates' attitudes and motivations to learning English						
Students	A	B_1	B_2	B_3	B_4	row tally of y-answers
12	y	y	y	y	y	5
21	y	y	y	y	y	5
20	y	y	y	y	y	5
13	y	y	y	n	y	4
17	y	y	y	n	y	4
18	y	y	y	n	y	4
7	y	y	y	n	y	4
9	y	y	n	y	y	4
11	y	y	y	n	y	4
23	y	y	y	n	y	4
26	y	y	y	n	y	4
31	y	y	n	y	y	4
33	y	y	y	n	y	4
35	y	y	y	n	y	4
36	y	y	y	n	y	4
2	y	y	n	n	y	3
5	y	y	n	n	y	3
6	y	y	n	n	y	3
14	y	y	y	ø	ø	3
22	y	y	n	n	y	3
25	y	y	n	n	y	3
28	y	y	n	n	y	3
34	y	y	y	n	ø	3
38	y	n	n	y	y	3
40	y	y	n	n	y	3
30	y	y	n	n	y	3
4	y	y	n	n	y	3
8	y	y	n	n	y	3
10	y	y	n	n	y	3
15	y	n	n	y	y	3
16	y	y	n	n	y	3
19	y	y	n	n	y	3
24	y	y	n	n	y	3
27	y	y	n	n	y	3
32	n	n	n	n	n	0
37	y	y	n	n	y	3
39	y	y	n	n	y	3
1	y	y	n	ø	ø	2
3	y	y	n	n	n	2
41	y	n	n	n	y	2
29	n	n	n	n	ø	0
Column tally of y-answers	39	36	15	7	35	132

Table 3

Candidates' attitude towards pronunciation accuracy				
Students	In my view, pronunciation accuracy is top priority when learning an L2	In my view, communicability despite faulty pronunciation is top priority when learning an L2	I would like to achieve native-like pronunciation	I would join a project on English pronunciation teaching
12	y	n	y	y
21	y	n	y	y
20	n	y	n	n
13	y	n	y	y
17	y	n	y	y
18	y	n	y	y
7	y	n	y	n
9	y	n	y	n
11	y	n	y	n
23	y	n	y	n
26	y	n	y	n
31	n	y	y	n
33	y	n	y	n
35	y	n	y	n
36	y	n	y	n
2	y	n	y	y
5	y	n	y	y
6	y	n	n	y
14	Ø	n	Ø	y
22	y	n	y	y
25	y	n	y	y
28	y	n	y	y
34	y	n	y	y
38	y	n	y	y
40	y	n	y	y
30	y	n	y	y
4	y	n	y	n
8	y	n	y	n
10	y	n	y	n
15	y	n	n	n
16	y	n	y	n
19	y	n	y	n
24	y	n	y	n
27	y	n	y	n
32	y	n	y	n
37	y	n	y	n
39	y	n	y	n
1	Ø	Ø	Ø	n
3	y	n	y	n
41	y	n	y	n
29	y	n	n	n
Total of y-answers	37	2	35	16
n-answers	2	38	4	25
Ø	2	1	2	0

Table 4

Scale 1: assessing subject reading of words and phrases in a list. Component: pronunciation at the segmental level (PSL).	
%	Appraisal per token
100 – 90	Utterance virtually as a native speaker.
80 – 70	Utterance sufficiently correct, can be understood without difficulty.
60 – 50	Utterance can be understood with little difficulty.
40 – 30	Utterance poorly articulated so that comprehension is difficult.
20 – 10	Utterance so poor that comprehension is extremely difficult.
0	Unintelligible.
Scale 2: assessing subject reading of TX. Component: pronunciation at the suprasegmental level (PSSL)	
100 – 90	Virtually native-speaker stress-timing, rhythm, and placing of stress, intonation patterns and range of pitch within sentence; natural linking of phrases.
80 – 70	Stress-timing, rhythm, placing of stress, intonation, etc. sufficiently native-like as to make comprehension easy and listening pleasurable.
60 – 50	Stress-timing, rhythm, placing of stress, intonation, etc. sufficiently controlled.
40 – 30	Foreign speech patterns make the subject occasionally difficult to understand.
20 – 10	Foreign speech patterns severely impede comprehension.
0	Not intelligible, through faulty stress and intonation.
Scale 3: assessing subject reading of TX. Component: PSL	
100 – 90	All individual sounds virtually as a native speaker.
80 – 70	Most individual sounds virtually as a native speaker.
60 – 50	All sounds sufficiently correct, can be understood without difficulty.
40 – 30	Some individual sounds poorly articulated so that comprehension is sometimes difficult.
20 – 10	Individual sounds so poor that comprehension is often impossible.
0	Unintelligible.

(Adapted from UCLES, 1991:13)

Table 5 Critical Values of t (adapted from Fisher and Yates, 1963, cited in Brown, 1988: 168)

	Level of significance for one-tailed test					
	.10	.05	.025	.01	.005	.0005
	Level of significance for two-tailed test					
df	.20	.10	.05	.02	.01	.001
1	3.078	6.314	12.706	31.821	63.657	636.619
2	1.886	2.920	4.303	6.965	9.925	31.598
3	1.638	2.353	3.182	4.541	5.841	12.941
4	1.533	2.132	2.776	3.747	4.604	8.610
5	1.476	2.015	2.571	3.365	4.032	6.859
6	1.440	1.943	2.447	3.143	3.707	5.959
7	1.415	1.895	2.365	2.998	3.499	5.405
8	1.397	1.860	2.306	2.896	3.355	5.041
9	1.383	1.833	2.262	2.821	3.250	4.781
10	1.372	1.812	2.228	2.764	3.169	4.587
11	1,363	1.796	2.201	2.718	3.106	4.437
12	1.356	1.782	2.179	2.681	3.055	4.318
13	1.350	1.771	2.160	2.650	3.012	4.221
14	1.345	1.761	2.145	2.624	2.977	4.140
15	1.341	1.753	2.131	2.602	2.947	4.073
16	1.337	1.746	2.120	2.583	2.921	4.015
17	1.333	1.740	2.110	2.567	2.898	3.965
18	1.330	1.734	2.101	2.552	2.878	3.922
19	1.328	1.729	2.093	2.539	2.861	3.883
20	1.325	1.725	2.086	2.528	2.845	3.850
21	1.323	1.721	2.080	2.518	2.831	3.819
22	1.321	1.717	2.074	2.508	2.819	3.792
23	1.319	1.714	2.069	2.500	2.807	3.767
24	1.318	1.711	2.064	2.492	2.797	3.745
25	1.316	1.708	2.060	2.485	2.787	3.725
26	1.315	1.706	2.056	2.479	2.779	3.707
27	1.314	1.703	2.052	2.473	2.771	3.690
28	1.313	1.701	2.048	2.467	2.763	3.674
29	1,311	1.699	2.045	2.462	2.756	3.659
30	1.310	1.697	2.042	2.457	2.750	3.646
40	1.303	1.684	2.021	2.423	2.704	3.551
60	1.296	1.671	2.000	2.390	2.660	3.460
120	1.289	1.658	1.980	2.358	2.617	3.373
∞	1.282	1.645	1.960	2.326	2.576	3.291

APPENDIX VI

Structure of the use of the intonation systems of prominence, tone and key by CG and EG members

Note that this is *not* an exact transcription of their speech; the focus here is only on the intonation systems of prominence, tone and key.

The Control Group

Student 12
// ↘ aMONG the SPEAkers // → at toDAY'S // ↗ NAtional TRANSport conference //

// ↘ will BE // ↘MISTER // ↘TOM WILLiams //

// ↘ ↑ MISter WILLiams // ↘ i underSTAND // ↘THAT //

// → HAving been a // ↘ KEEN // ↘ NOT // ↘ to SAY // ↘ fa ↑ NAtical // ↘MOtorist //

// → for MOST of your life //→ you're now having ↑ SECond ↑ THOUGHTS //

Student 13
// → aMONG the SPEAkers // → at toDAY'S // → NAtional TRANSport CONference //

// → will BE // → mister TOM WILLiams //

// ↘ ↑ MISter WILLiams // → i underSTAND // ↘THAT //

// → HAving been a // → KEEN // → NOT // → TO // → SAY // ↘ faNAtical //

//↘MOtorist // → for MOST // → OF // → YOUR // →LIFE //↘ YOU'RE //

// ↘NOW // → Having // → SECond THOUGHTS //

Student 14
// ↘ aMONG the SPEAkers // → at toDAY'S // ↗ NAtional TRANSport conference //

// ↘ will be mister TOM WILLiams //

// ↘ ↑ MISter WILLiams // ↘ i underSTAND that //

// → HAving been a // ↘ KEEN // ↘ NOT to say // ↘ fa ↑ NAtical // ↘motoRIST //

// → for MOST of your life //↘ you're now having ↑ SECond ↑ THOUGHTS //

Student 17

// ↘ aMONG //↘ THE //↘ SPEAkers // → at toDAY'S //

//→ NAtional TRANSport CONference // ↘ will be MISter // ↘ TOM WILLiams //

// ↘ ↑ MISter WILLiams // ↘ i underSTAND // ↘ THAT //

// → HAving been a // ↘ KEEN // ↘ NOT to say // ↘ fa ↑ NAtical motorist //

// → for MOST of your life //↘ you're now having ↑ SECond ↑ THOUGHTS //

Student 18

// → aMONG the SPEAkers // → at toDAY'S // ↘ NAtional //↘TRANSport //

//↘CONference // → will be mister TOM WILLiams //

// ↘MISter WILLiams // → i underSTAND that //

// → HAving been a // → KEEN // ↘ NOT to say // → fanatical // → MOtorist //

// → for MOST of your life //→ you're now having // → SECond // → THOUGHTS //

Student 21

// → aMONG the SPEAkers // → at toDAY'S // → NAtional TRANSport CONference //

// → WILL //→ BE // ↘mister TOM WILLiams //

// ↘ ↑ MISter WILLiams // ↘ i underSTAND // ↘ THAT //

// → HAving been a // ↘ KEEN // ↘ NOT to say // ↘ fa ↑ NAtical // ↘MOtorist //

// → for MOST of your life //↘ you're now having ↑ SECond ↑ THOUGHTS //

Student 28

// ↘ aMONG the SPEAkers // → at toDAY'S // ↗ NAtional TRANSport CONference //

// ↘ will be mister TOM WILLiams //

// ↘ ↑ MISter WILLiams // ↘ i underSTAND // → THAT //

// → HAving been a // ↘ KEEN // ↘ NOT to say // ↘ fa ↑ NAtical motorist //

// ↘ for MOST of // ↗your LIFE //↘ you're now having ↑ SECond ↑ THOUGHTS //

Student 30

// ↘ aMONG the SPEAkers // → at toDAY'S // → NAtional TRANSport // → CONference //

// ↘ will BE // ↘MISter TOM WILLiams //

// ↘ ↑ MISter WILLiams // ↘ i underSTAND // ↘ THAT //

// → HAving // → BEEN a // ↘ KEEN // ↘ NOT // ↘TO // ↘SAY // ↘ faNAtical //

//↘MOtorist // → for MOST of your life //

//→ you're now having ↑ SECond ↑ THOUGHTS //

The Experimental Group

Student 2

// → aMONG the SPEAkers // → at toDAY'S // → NAtional TRANSport CONference //

// → will be mister TOM WILLiams //

// → ↑ MISter WILLiams // → i underSTAND that //

// → HAving been a // → KEEN // → NOT to say // → faNAtical motorist //

// → for MOST // → of your LIFE //↘ you're now having ↑ SECond ↑ THOUGHTS //

Student 5

// ↘ aMONG the SPEAkers // → at toDAY'S // ↗ NAtional TRANSport CONference //

// ↘ will be mister TOM WILLiams //

// ↘ ↑ MISter WILLiams // ↘ i underSTAND that //

// → HAving been a // ↘ KEEN // ↘ NOT to say // ↘ fa ↑ NAtical motorist //

// ↺ for MOST of your life //↘ you're now having ↑ SECond ↑ THOUGHTS //

Student 6

// ↘ aMONG the SPEAkers // → at toDAY'S // ↗ NAtional TRANSport CONference //

// ↘ will be mister TOM WILLiams //

// ↘MISter WILLiams // ↘ i underSTAND that //

// → HAving been a // ↘ KEEN // ↘ NOT to say // ↘ fa ↑ NAtical motorist //

// ↺ for MOST of your life //↘ you're now having ↑ SECond ↑ THOUGHTS //

Student 22

// ↘ aMONG the SPEAkers // → at toDAY'S // ↗ NAtional TRANSport CONference //

// ↘ will be mister TOM WILLiams //

// ↘ ↑ MISter WILLiams // ↘ i underSTAND that //

// → HAving been a // ↘ KEEN // ↘ NOT to say // ↘ fa ↑ NAtical motorist //

// ↺ for MOST of your life //↘ you're now having ↑ SECond THOUGHTS //

Student 25

// → aMONG the SPEAkers // → at toDAY'S // ↗ NAtional TRANSport CONference //

// → will be mister TOM WILLiams //

// → MISter WILLiams // → i underSTAND // → THAT //

// → HAving // → BEEN a // ↘ KEEN // ↘ NOT to say // ↘ fa ↑ NAtical // ↘ MOtorist //

// → for MOST // → of your LIFE //↘ YOU'RE // ↘ NOW //

// ↘having SECond THOUGHTS //

Student 34

// → aMONG the SPEAkers // → AT toDAY'S // → NAtional TRANSport conference //

// → will be mister TOM WILLiams //

// → ↑ MISter WILLiams // → i underSTAND that //

// → HAving been a KEEN // → NOT to say // → fa ↑ NAtical motorist //

// → for MOST of your LIFE // → YOU'RE now // having SECond THOUGHTS //

Student 38

// ↘ aMONG the SPEAkers // → at toDAY'S // ↘ NAtional TRANSport // ↘ CONference //

// ↘ will be mister TOM // ↘ WILLiams //

// ↘ MISter WILLiams // ↘ i underSTAND that //

// → HAving been // → a KEEN // ↘ NOT to say // ↘ fa ↑ NAtical // ↘ MOtorist //

// ↘ for MOST of your // ↘ LIFE // ↘ you're now HAving // ↘SECond // ↘THOUGHTS //

Student 40

// ↘ aMONG the SPEAkers // → at toDAY'S // ↗ NAtional TRANSport // ↘ CONference //

// ↘ WILL BE // → mister TOM WILLiams //

// ↘ ↑ MISter WILLiams // → i underSTAND // → that HAving been a // ↘ KEEN //

// ↘ NOT to say // ↘ fa ↑ NAtical motorist //

// ↘ for MOST of your life //↘ you're now having SECond THOUGHTS //

REFERENCES

Acton, W. (1984) 'Changing Fossilized Pronunciation'. *TESOL Quarterly* 18(1): 69-83.

Bachman, L. F. (1990) *Fundamental Considerations in Language Testing*. Oxford: Oxford University Press.

Baker, A. (1977) *Ship or Sheep.* Cambridge: Cambridge University Press.

Bloomfield, L. (1933) *Language*. New York: H. Holt, Rinehart and Winston.

Bowler, B. and Cunningham, S. (1991) *Headway: Upper-intermediate Pronunciation.* Oxford: Oxford University press.

Brasil, Ministério da Educação, Secretaria de Educação Média e Tecnológica (1999). *Parâmetros Curriculares Nacionais: ensino médio*. Brasília: MEC/SEMT.

Brazil, D., Coulthard, M. and Johns, C. (1980) *Discourse Intonation and Language Teaching.* London: Longman.

Brazil, D. (1985) *The communicative value of intonation in English*. English Language Research, University of Birmingham.

Brazil, D. (1994a) *Pronunciation for Advanced Learners of English*: *Student's Book.* Cambridge: Cambridge University Press.

Brazil, D. (1994b) *Pronunciation for Advanced Learners of English: Teacher's Book.* Cambridge: Cambridge University Press.

Bresnahan, M. J. et al. (2002). 'Attitudinal and affective response toward accented English' *Language & Communication*. 22: 171-185. www.elsevier.com/locate/lang.com (11 November 2003).

Broughton, G., Brumfit, C., Flavell, R., Hill, P. and Pincas, A. (1980) *Teaching English as a Foreign Language* (2nd edition). London: Routledge & Kegan Paul.

Brown, A. (1992) 'Twenty questions'. In A. Brown (ed.) *Approaches to Pronunciation Teaching*. London: MacMillan.

Brown G. and Yule G. (1983) *Discourse Analysis*. Cambridge: Cambridge University Press.

Brown, H. D. (1994) *Teaching by Principles*. New Jersey: Prentice Hall.

Brown, J. D. (1988) *Understanding Research in Second Language Learning: a teacher's guide to statistics and research design*. Cambridge: Cambridge University Press.

Callamand, M. (1981) *Méthodologie de l'enseignement de la prononciation*. Paris: Nathan.

Callamand, M. and Pedoya, E. (1984) 'Phonétique et ensignement'. *Le français dans le monde*182:56-58.

Cambridge International Dictionary of English (1995) Cambridge: Cambridge University Press.

Canale, M. (1983) 'From communicative competence to communicative language pedagogy'. In J. C. Richards and R. W. Schmidt (eds.) *Language and Communication*. London: Longman.

Canale, M. and Swain, M. (1980) 'Theoretical basis of communicative approaches to second language teaching and testing'. *Applied Linguistics* 1:1-47.

Carruthers, R. (1987) 'Teaching pronunciation'. In M. H. Long and J. C. Richards (eds.) *Methodology in TESOL: a Book of Readings*. Boston: Heinle & Heinle Publishers.

Cauldwell, R. and Allan M. (1998) *Phonology*. Birmingham: The University of Birmingham. MA TEFL/TESL Open Distance Learning.

Celce-Murcia, M. (1987) 'Teaching pronunciation as communication'. In J. Morley (ed.) *Current Perspectives on Pronunciation*. Washington, DC: TESOL

Coulthard, R. M. (1985) *An Introduction to Discourse Analysis* (2nd edition). London: Longman.

Couper-Kuhlen, E. (1986) *An Introduction to English Prosody*. London: Edward Arnold.

Crystal, D. (1995) *The Cambridge encyclopaedia of the English language*. Cambridge: Cambridge University Press.

Dickerson, L. (1975) 'The learner's interlanguage as a set of variable rules'. *TESOL Quarterly*. 9 (4): 401-408.

Deterding, D. and Poedjosoedarmo, G. (1998) *The Sounds of English: Phonetics and Phonology for English Teachers in Southeast Asia*. Singapore: Prentice Hall.

Eckman, F. (1977) 'Markedness and the Contrastive Analysis Hypothesis'. *Language Learning* 27: 315-330.

Fillmore, C. J. (1977) 'Topics in lexical semantics'. In R. W. Cole (ed.) *Current Issues in Linguistic Theory*. Bloomington: Indiana University Press.

Firth, J. R. (1957) *Papers in Linguistics*. Oxford: Oxford University Press.

Flege, J. (1987) 'A Critical Period for Learning to Pronounce Second Languages?' *Applied Linguistics* 8: 162-177.

Francis, A. L. and Jones, E. (1996) 'Phonetics and Phonological Theory'. *Language & Communication* 16 (4): 381-393 www.elsevier.com/locate/system (4 January 2004).

Fries, C. (1945) *Teaching and Learning English as a Foreign Language*. Ann Arbor: University of Michigan Press.

Gardner, R. C. (1985) *Social Psychology and Second Language Learning: The Role of Attitudes and Motivation*. London: Edward Arnold.

Gilbert, J. B. (1993) *Clear Speech: Pronunciation and Listening Comprehension in North American English* (2nd edition). New York: Cambridge University Press.

Goto, H. (1971) 'Auditory Perception by Normal Japanese Adults of the Sounds "l" and "r"'. *Neuropsychologia* 9: 317-323.

Goh, C. C. M. (2000) 'A cognitive perspective on language learners' listening comprehension problems'. *System* 28: 55-75 www.elsevier.com/locate/system (12 January 2004).

Graham, C. (nd) 'Contrastive Analysis Revisited: A Participative Approach to Improving Language Performance'. www.unb.br/il/let/graham/conan.htm (14 February 2004).

Harnsberger, D. J. (2001) 'The perception of Malayalam nasal consonants by Marathi, Punjabi, Tamil, Oriya, Bengali, an American English listeners: A multidimensional scaling analsis'. *Journal of Phonetics* 29: 303-327. Available at www.idealibrary.com (1 February 2004).

Horwitz, E. K. (1999) 'Cultural and situational influences on foreign language learners' beliefs about language learning: a review of BALLI studies'. *System* 27: 557-576 www.elsevier.com/locate/system (1 February 2004).

Hutchinson, T. (1998) *American Hotline*. Oxford: Oxford University Press.

Ivanič, R. Camps, D. (2001) 'I am how I sound. Voice as self-representation in L2 writing'. *Journal of Second Language Writing* 10: 3-33. www.elsevier.com/locate/system (1 March 2004).

Jackson, C. (2004) www.cindyjackson.com/my_surgery.html (12 March 2004).

Kello, C. T. (2003) 'Patters of timing in the acquisition, perception, and production of speech'. *Journal of Phonetics* 31: 619-626. Available at www.sciencedirect.com (12 December 2004).

Kenworthy, J. (1987) *Teaching English Pronunciation*. London: Longman.

Koren, S. (1995) 'Foreign Language Pronunciation Testing: a new approach'. *System* 23 (3): 387-400 Elsevier www.elsevier.com/locate/system (10 March 2004).

Krashen, S. D. and Terrell T. D. (1983) *The Natural Approach: Language Acquisition in the classroom.* Hayward, California: Alassany Press.

Larsen-Freeman, D. (1986) *Techniques and Principles in Language Teaching*. New York: Oxford University Press.

Leather, J. and James, A. (1991) 'The Acquisition of Second Language Speech'. *Studies in Second Language Acquisition* 13: 305-331.

Long, M. H. (1983) 'Does second language instruction make a difference? A review of research'. *TESOL Quarterly* 17(3): 359-382.

Maken, M. A. and Ferguson, C. A. (1987) 'Phonological Universals in Language Acquisition'. In G. Ioup and S. H. Weinberger (eds.) *Interlanguage Phonology*. Cambridge: Newbury House.

Martins, M. H. (1982) *O que é Leitura*. São Paulo: Brasiliense.

McCarthy, M. (1991) *Discourse Analysis for Language Teachers*. Cambridge: Cambridge University Press.

Miller, L. M. (2004) 'Using learning styles to evaluate computer-based instruction'. *Computers in Human Behavior*. In press. Available online at www.sciencedirect.com (19 March 2004)

Naiman, N. (1992) 'A communicative approach to pronunciation teaching'. In P. Avery and S. Ehrlich, *Teaching American English Pronunciation*. Oxford: Oxford University Press.

Newmark, L. (1990) 'Changing Student Pronunciation: Getting People to Eat Worms'. In R. C. Scarcella, E. S. Andersen and S. D. Krashen (eds.) *Developing Communicative Competence in a Second Language*. Boston, MA.: Heinle & Heinle Publishers.

Newton, Anne C. (1979) 'Current Trends in Language Teaching'. In M. Celce-Murcia & L. McIntosh (eds.) *Teaching English as a second or foreign language*. Rowley, MA: Newbury House.

Nunan, D. (1991*) Language Teaching Methodology: A textbook for teachers*. Hemel Hempstead: Prentice Hall International.

O'Connor, J. D. and Fletcher, C. (1989) *Sounds English.* Harlow: Longman.

Ohala, J. J. and Shriberg, E. E. (1990) 'Hypercorrection in speech perception'. *Proceedings of the XIIth International Congress of Phonetic Sciences.* Aix-en-Provence 1 : 1-16.

Oxenden, C. and Seligson, P. (1996) *English File: student's book one.* Oxford: Oxford University Press.

Pavlov, I. P. (1955) *Selected works*. (J. Gibbons, ed.). Moscow: Foreign Languages Pub. House.

Pennington, M. C., and Richards, J. C. (1986) 'Pronunciation revisited'. *TESOL Quarterly* 20(2): 207-225.

Pennington, M. C. (1996) *Phonology in English Language Teaching: An International Approach*. London: Longman.

Pica, T. (2000) 'Tradition and transition in English language teaching methodology'. *System* 28: 1-18 www.elsevier.com/locate/system (12 January 2004).

Pica, T. (1984) 'Pronunciation Activities with an Accent on Communication'. *English Teaching Forum* 22(3): 2-6.

Pienemann, M. (1984) 'Psychological Constraints on the Teachability of Languages'. *Studies in Second Language Acquisition* 6:186-214.

Poedjosoedarmo, G. (2004) *O Ensino da Pronúncia: por quê, o quê, quando e como*. São Paulo: Portfolio SBS: reflexões sobre o ensino de idiomas; 9. SBS Editora.

Rogerson, P. and Gilbert J. B. (1990) *Speaking Clearly*. Cambridge: Cambridge University Press.

Rossiter, M. J. and Derwing, T. M. (2002) 'ESL learners' perceptions of their pronunciation needs and strategies'. *System* 30: 155-166. Available at www.elsevier.com/locate/system (20 February, 2002).

Rutherford, W. E. (1987) *Second Language Grammar: Learning and Teaching*. New York: Longman.

Sadock, J. M. (1978) 'On testing for conversational implicature'. In P. Cole (ed.) *Syntax and Semantics, Volume 9: Pragmatics*. New York: Academic Press.

Sato, C. (1985) 'Task variation in interlanguage phonology'. In S. Gass and E. Varonis (eds.) *Input in Second Language Acquisition*. Rowley, MA.: Newbury House.

Scarcella, R. C. and Oxford, R. L. (1994) 'Second Language Pronunciation: State of the Art in Instruction. *System* 22(2): 221-230.

Schank, R. C. (1979) 'Some prerequisites for a computational pragmatics'. In J. L. Moy (ed.) *Pragmalinguistics*. The Hague: Mouton.

Seliger, H. W. and Shohamy, E. (1989) *Second Language Research Methods*. Oxford: Oxford University Press.

Shedivy, S. L. (2004) 'Factors that lead some students to continue the study of foreign language past the usual 2 years in high school'. *System* 32:103-119. Elsevier www.elsevier.com/locate/system (10 March 2004).

Sinclair, J. McH. and Brazil, D. (1982) *Teacher Talk*. Oxford: Oxford University Press.

Skinner, B. F. (1957) *Verbal Behaviour*. New York: Appleton Century Crofts.

Stern, H. H. (1992) *Issues and Options in Language Teaching*. Oxford: Oxford University Press.

Tarone, E. (1978) 'The Phonology of Interlanguage'. In J. C. Richards (ed.) *Understanding Second and Foreign Language Learning*. Rowley, MA: Newbury House.

The Concise Oxford Dictionary (8th edition) (1990). Oxford: Oxford University Press.

Underhill, A. (1994) *Sound Foundations*. Oxford: Macmillan Heinemann.

Ur, P. (1981) *Discussions that Work.* Cambridge: Cambridge University Press.

UCLES University of Cambridge Local Examinations Syndicate (1991) *Cambridge Proficiency Examination Practice 4: Teacher s Book.* Cambridge: Cambridge University Press.

Woods, A., Fletcher, P, and Hughes, A. (1986) *Statistics in language studies*. Cambridge: Cambridge University Press.

Wrembel, M. (2001) 'Innovative Approaches to the Teaching of Practical Phonetics'. Adam Michiewicz University. www.phon.ucl.ac.uk/home/johnm/ptlc2001/pdf/wrembel.pdf. (5 February 2004).