Fingerprints: lines for the identification of a teacher of Portuguese

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Nowadays, to reflect on the problems and challenges which are associated with the education matrix of language teachers in the 21st century means, from my perspective, to look and listen in order to try:

• to establish a relationship between the status oral skills and literacy hold in today’s world and the core functions of teachers;
• to understand the knowledge and skills that underlie those functions;
• and to consequently derive guidelines for the education and professional development of language teachers.

In other words, through the senses I mentioned above – looking and listening – we need to determine the way in which we can give shape to teacher fingerprints bearing in mind their impact on the quality of students’ language learning at school.

I will focus, inevitably, on the training of Portuguese language teachers since this is the field I’ve been working in for 18 years at the Faculty of Letters of Lisbon (FLUL) Teacher Education Programme.

1. A world of communication

The fingerprints of the majority of today’s language teachers show, essentially, traces of a literacy anchored in the cultural tradition started by Gutenberg in the 15th century. However, their students-to-be are growing up in a society marked by new information and communication technologies (ICT), in which they acquire the ability and experience to live in a “post-typographic world”. This expression is thought to have been introduced 43 years ago by McLuhan (1962), and it is used by Reinking et al. (1998) to refer to a world “in which the technologies of print will no longer be the dominant form of written communication”. By *typographic* Reinking means “any text displayed on a sheet of paper or other static, material surface” and by *post-typographic*, any text “in digital form displayed electronically on dynamically alterable surfaces such as a computer screen” (Reinking, 1998: xx-xxi.).
In our world, in which the economy is based on goods and services as well as on information, language-related competences have become crucial for the welfare of citizens; such competences offer an added value in the market of global communication. Both the social value of educational capital, namely that which is related to the mastering of languages (cf. Block & Cameron, 2001), and the professional development of teachers aimed at promoting that capital are nowadays widely recognized (cf. Coolahan, 2002; OECD, 2001).

The impact digital technologies have on the way we live and learn cannot be underestimated. They give new life to writing - we now write letters by e-mail and text messages by mobile phone; we chat writing online through the IRC (internet relay chat); in forums, we have formal discussions in writing; information circulates to mailing lists and discussion groups… Therefore, digital technologies demand the skills of reading and writing. In Eco’s own words (1996): “In this sense one can say that the computer made us return to a Gutenberg Galaxy”.

It is interesting to notice the on-going development of an ability specific to the human race (and such developments usually take many generations to be accomplished!) involving the use of the thumbs to communicate by writing. While we, adults, usually use the forefinger, young people, who grew up with an enthusiasm for the new technologies of mobile communication, prefer the thumb (or thumbs) in order to read and write messages in a quick and efficient way, almost without looking at the keyboard. According to information broadcast by the BBC News (25th March 2002) concerning the results of a study developed by Warwick University’s Cybernetic Culture Research Unit, youngsters’ thumbs are becoming “stronger and more dexterous”. From this we can conclude that “the relationship between technology and the users of technology is mutual”. This new generation of text messaging has already been called the “thumb tribe”.

Since being young is one of the attributes of Portuguese teachers abroad1 – according to information given by the Camões Institute, the number of teachers aged 50 years or more is low – we cannot expect from them anything else but flexibility and a keenness to introduce innovation in educational practices. However, it seems obvious that only a suitable training can establish the necessary foundations to achieve that purpose. (Being young is not enough!)

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1 Basic and secondary school Portuguese teachers are also in great majority young. According to OECD information, the percentage of teachers in Portugal aged 50 years or more in the public sector is low (16% in 1992 for the two levels in secondary school (‘lower secondary education’ and ‘upper secondary education’); 12% in 2000 only for ‘lower secondary school’ but combining both the public and the private sectors). These percentages are much more inferior to the ones from other countries (Germany, Italy, Sweden, Holland, Finland, France, Ireland, among others) and the percentage of pensions for teachers planned for the coming years will therefore also be lower (cf. OECD, 2002).
2. The Impact of New Technologies on Education

As far as the impact of new technologies on education is concerned, there are still inequalities in the access to and use of ICT in the educational context (cf. OCT, 2002). Furthermore, there is an urgent need to develop more research on the effective impact of ICT on the learning of literacy (cf. Andrews, 2004). Nevertheless, the Internet has been slowly promoting a change in learning and its importance to the future is undeniable (cf., for example, diSessa, 2000; Warschauer & Kern, 2000; Reinking et al. 1998).

At this stage, I would like to mention Crystal, who reflects on the linguistic future of the Internet:

“Netspeak is a development of millennial significance. A new medium of linguistic communication does not arrive very often, in the history of the race. As a new linguistic medium, Netspeak will doubtless grow in its sociolinguistic and stylistic complexity to be comparable to that already known in traditional speech and writing.” (Crystal, 2001: 238-239)

One of the main reasons for the integration of the Internet into the language teaching process is, according to Warschauer & Whittaker (1997), “the belief that learning computer skills is essential to students’ future success; this reason suggests that it is not only a matter of using the Internet to learn English [or any other language – be it a first, a second, or a foreign language] but also of learning English [and again any other language] to be able to function well on the Internet”.

The “electronic literacy” approach developed by Shetzer & Warschauer (2000) tries to combine these objectives taking into account three fundamental areas for its development in educational contexts: 1) communication – which involves new ways of interacting and collaborating through computer-mediated communication (CMC); 2) construction – which refers to new ways of presenting written information in hypertext; 3) research – which includes the reading and critical evaluation of information available on-line.

Statistical information provided by the Portuguese Observatory for Sciences and Technologies, regarding data collected between 1995 and 2001 for the Information Society, highlights the investment that Portugal has been making, like many other countries, to integrate the new information and communication technologies in all schools (cf. OCT, 2002). Nevertheless, as clearly shown in a recent OECD report, the ICT potential is still not fully used in secondary education in many countries. Some of the reasons are, for example, the difficulty experienced in integrating ICT technologies in regular educational activities and also the lack of teacher training for this purpose (cf. OECD, 2004).

As we already know, the use of the Internet in educational contexts is not by itself sufficient to determine high quality teaching. However, because it is a means of linguistic
communication, bringing together language knowledge and use, as well as knowledge and information about language, the Internet can help to create interesting instruments and activities relevant for the promotion of the learning of skills required for writing.

Results from a study conducted by Duarte et al. (2003) on linguistic characteristics of IRC (internet relay chat) written dialogues in Portuguese schools indicate that these materials are interesting from an educational point of view, since they allow us to understand and systematize the differences between informal speech and writing. Briefly (and I quote):

“This objective involves: the observation and systematizing of openings and closings of conversations (distinct from, for example, the standardised openings and closings of letters); the syntactic features of conversational units made up of (sequences of) question-answer pairs (as opposed to the syntactic features of the paragraph unit in a written text); the use of deixis, understandable because of the situational context (in opposition to the strategies to fix and maintain referents in writing); analysis of the type of vocabulary allowed in informal conversations (in opposition to style (or register) requirements, precision and variety demanded in writing); study of the phonetic and phonological properties of spoken language, based upon the observation of the different graphic versions used by the same student for the same lexical target, which allows us to systematize different oral processes (omissions of vowels and consonants, phonological stress and intonation); the systematizing of information concerning the norms of the written code (among others, the graphic stress mark, punctuation and the use of capital letters).” (Duarte et al., 2003: 13)

Recognizing the role that teacher education may play on the successful incorporation of the Internet in the repertoire of Portuguese teachers’ methods and resources (with a view to fostering learning), the Netlíngu@ project experimented not only with different modalities of use (Web, chatting, e-mail, discussion forum) but also with strategies for the integration of the Internet as a resource for research, construction and communication (three above-mentioned areas which are deemed to be fundamental for the development of electronic literacy). These experiments involved teaching activities implemented in the area of Portuguese language teaching at FLUL, and to the teaching of Portuguese as a first language in basic and secondary schools (cf. Mata, Santos & Costa, 2002).

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2 The Netlíngu@ project (www.uarte.mct.pt/activ/netlingua/) was developed by a group of Portuguese teachers of Portuguese as a first language – of the Department of General and Romance Linguistics at FLUL, in partnership with uARTE-MCT, between January 2001 and August 2002. Although the project is now finished, there is still on-going work connected with FLUL’s training programme.
3. The importance of spoken language skills at school

With regard to the role spoken language skills play in education, let me first give you some research findings about the perceived command of spoken discourse concerning Portuguese as a first language (L1). I believe this information will be important in helping language teaching professionals think about competence to speak fluently – a problem which has been raised with increasing frequency in the context of second and foreign language teaching.

Portuguese young people are well aware of the socio-cultural importance that oral skills have. According to a Master’s dissertation submitted to the FLUC by D. Santos in 2000, the majority of young people believe it is prestigious to have a good command of spoken language and “think one should speak well on all occasions”. At the same time, they evaluate their own command of spoken language in a very negative way and the same is true of teachers (cf. Santos 2000).

In this study, entitled *Linguistic Prestige and the Teaching of the Mother Tongue*, Santos demonstrates that for Portuguese secondary school students, as well as for undergraduate students, the factors which play a crucial role in determining someone’s prestige are essentially related to school and linguistic education and not to social and physical characteristics. As for the former factors, “ability to communicate and sympathy”, comes first (59,33%); “literary and professional qualifications”, comes second (37,33%); and “good writing” comes third (28%). Social and physical factors are less important: “good social connections and power”, comes fourth (26,67%); “social background and wealth” together with “good appearance and physical beauty”, come sixth (32% and 36%, respectively). Effective oral skills are the single most important factor in determining linguistic prestige. To the students, oral ability is deemed to be more important than writing ability (which surprises me!); moreover, comparing results, it doesn’t seem to be highly valued by the teachers either (which startles me!).

Which are then the most important factors affecting excellence in speaking (“to speak well”)?

150 students – 90 from secondary education and 60 from higher education – and 30 teachers – 19 from secondary education and 11 from higher education – were inquired by Santos (op. cit.).
They were given the following options (and I quote): “1. Accuracy (according to grammatical rules); 2. Vocabulary (varied and unusual); 3. Ease of expression (a fluid discourse); 4. Phonetics (a good pronunciation); 5. Syntax (well-structured sentences); 6. Clarity (understandable language)”. Both secondary and undergraduate students as well as teachers considered “ease of expression” (i.e. fluency) the most important factor. In their opinion, the least important factors were “the use of a varied and uncommon vocabulary” together with “phonetics” (i.e. “pronunciation”). In between and slightly distanced from the first factor – fluency –, they chose: “clarity” and “syntax”. It is interesting to note that “to talk with clarity, using understandable language, is more important to the students than to the teachers” and the opposite is true as far as the syntactic well-formedness of sentences is concerned. As regards “accuracy”, a factor which also depends upon linguistic knowledge, there is an enormous variation in the students’ answers (both secondary and higher education students). However, this does not mean that they don’t think it is important to follow grammatical rules when speaking! Teachers’ answers give a more clear indication of the importance of accuracy in speaking well. Teachers place accuracy at an intermediate level (cf. Santos, 2002: 116).

These results also suggest that metalinguistic knowledge does not correspond to the predicted level of attainment after compulsory schooling as far as spoken language is concerned. (As far as other domains are concerned, please see the comparative analysis of results concerning the National Monitoring Exams of Basic School, between 2001 and 2003, http://www.portugal.gov.pt/NR/rdonlyres/C2BBB51A-FFD2-4E16-A092-CC3907D8D0A8/0/Provas_de_Afericao.pdf).

We might think that the development of an explicit knowledge about the structural organization of a particular language, a better understanding of the elements and patterns which characterize that same language, as well as an understanding of their functions in oral productions – and in the differentiation between oral and written productions – would lead to a greater convergence of answers and to a more explicit valuing of the grammatical aspects mentioned above (“accuracy – according to grammatical rules” and “syntax – well-structured sentences”). **In fact, clarity and fluency are crucially dependent on our capacity to give form to what we intend to say.** This ability demands an excellent linguistic knowledge and a good command of strategies of language use to deal with different situations – namely, in formal, public, specific and planned situations. These correspond (and students have already understood it!) to outcomes of the school learning process and they play an essential role in school achievement and future professional development.
Spoken interaction and oral presentations are trivial school activities aimed at exchanging knowledge and developing learning (since writing, which is obviously fundamental, has never been the only mode of expression and access to information at school). However, they are highly structured activities, with varied linguistic mechanisms contributing to their own structuring process and to the understanding of the listener. In Portuguese we use the following expression: \textit{as palavras são como as cerejas} (in a literal translation, “words are like cherries”, they come one after the other, they proliferate). I have already affirmed on other occasions that in a formal context, namely, “in a context of formal learning at school, \textit{words are not meant to be like cherries} (i.e. speech is not meant to be made in many words, because words are not always available nor are they ready-at-hand), as is the case of interaction, for example, in non-professional contexts. In other words: the participants’ freedom is restricted, they cannot talk freely about any topic of their choice, they cannot change topic and move on to another topic whenever they feel like it and they cannot ignore set objectives”. As far as oral presentations at school are concerned, “more than talking about a pre-determined theme, an oral presentation presupposes the capacity to individually produce a greater amount of utterances, organizing the information that is given to the public in a clear structured form” (Mata, 1999: 6). These are relevant aspects for the effective knowledge of a broader speech repertoire, fundamental to the social prestige that students seek and that they recognize to be dependent on their linguistic education at school.

Let me show you how when we talk we do not merely string together individual sounds, nor do we simply juxtapose single utterances. I will only focus on the variation of intonation (of F₀ or pitch), a basic structural feature of Portuguese prosody, because intonation is one of the most important mechanisms for speakers to structure their speech flow, both sequentially and hierarchically, and to adapt it to different speech situations. For this purpose, I will present examples from the \textit{Corpus of European Portuguese Spoken by Teenagers at School} (CPE-FACES).
tínhamos que pôr as juras (U19)  
we had to include the oaths

... os provérbios (U20)  
the sayings

... as rezas (U21) 
the prayers

(BREATHEING)...
tínhamos que também pôr[i] (U22)  
we also had to present

... jogos de palavras (U23) 
word games

... aa (U24)  
uh

tínhamos que demonstrar[i] (U25)  
we had to demonstrate

... como é que era= (U26)  
also what were

as partes também (U27) 
The parts

do riso do castelhano (U28) 
of the Spanish laughter like

...(BREATHEING) .. aam (U29) .. (CLICK) (BREATHEING) .. um

as partes em que ele se= (U30)  
the parts in which he

se declarar= (U31)  
declares himself

...

tão constança (U32) 
to Constança

...(BREATHEING) .. aa (U33)  
uh

Figure 1. Representation of circa 17 seconds of an oral presentation by student SN  
(adapted from Mata, 1999)
Figure 2. Representation of circa 17 seconds of a spontaneous account by student SN (adapted from Mata, 1999)

.. praticamente só me deram <XassimX> os parabéns (U16) they almost only wished me..<Xthis wayX> happy birthday <U17>
e <XnãoX> sei quê= (U17) and I <Xdon’tX> know what more.

.. eu não estava à espera de nada (U18) I was not expecting anything...
  (BREATHING)
e então depois quando fui para casa (U19) and then when I went home
  .. (CLICK)  ..(BREATHING) aa (U20) uh
  estava (U21) was
  ..(CREAKY VOICE)
a minha sala (U22) my room
  toda às escuras (U23) all dark
  .. (CLICK) (BREATHING)

e= quando eu fui para lá (U24) and when I went there
  .. ( CREAKY VOICE)
apareceram uma data de amigos meus cá da turma (U25) lots of friends from my class showed up
  ..(BREATHING)
a fazer uma grande surpresa (U26) making a big surprise
  .. eu não estava= (U27) I was not
  ..

não estava à espera mesmo nada (U28) I was not expecting it not at all
  ..(BREATHING)
porque eles mentiram-me por tudo o que é que era= (U29) because they lied to me all about what it was
  ..(CREAKY VOICE)
X (U30)
  .. (CLICK) (BREATHING)
These figures allow us to read both the transcription and the stylization of F0 contours concerning two brief excerpts, the first selected from a planned speech and the second from a spontaneous one. In the first figure, a student in the 9th grade is presenting a work that her group prepared on the Auto da Índia by Gil Vicente; in the second figure, the same student is recounting the surprise her friends made her on her birthday.

Both figures make visible the way F0 contours contribute to give form to the flow of discourse, organizing it in cohesive units of different levels (that are not necessarily disrupted by pauses and breathing). We can distinguish three levels of intonational structuring: the intonation units (U) at the lowest level, the utterances at an intermediate level, the paragraph at a higher level. Intonation units are clearly scaled in relation to one another and they associate at an intermediate level in intonational utterances (black non-continuous line) and the same happens with these utterances at a higher level, the paragraph (thin white line).

Contrary to what is generally believed, filled pauses do not constitute by themselves an indicator of disfluency: when the global F0 contour is not disrupted, they function as important prosodic transition elements.

Both figures provide evidence that the control of F0 levels in relation to the adjacent prosodic context constitutes itself a fluency mechanism, essential for the speaker to be able to clearly distinguish the units that make up his/her speech and the way in which he/she establishes the relations between these same units.

Furthermore, if we compare the planned speech excerpt in figure 1 with the spontaneous speech excerpt in figure 2, it becomes clear that the former has a greater unity and is more regular than the latter. The student’s planned speech displays constituents of greater length and regularity and the intonation patterns that are used are also organized in a more harmonious manner. This variation of strategies of intonation organization is linked with the degree of planning and with the specificity of an oral presentation.

Although the majority of Portuguese language teachers might not be aware of the fact, the previous examples demonstrate that, at school, students learn aspects which are important in helping them develop fluency and carefully structure their oral production. Therefore, the effort they make to meet school requirements and the development level of their abilities, which are reflected on their pre-planned presentations, should be more highly valued.

Although this is not the place to explain in more detail the stylization of F0 contours, I will only add that it allows us to describe the relevant tonal events and their scaling intra and inter intonation units. This stylization consists of an interpolation between the target F0 values of stressed vowels (white circles), which preserves the information concerning the synchronization of F0 movements with different kinds of syllables (white line in the unstressed syllables, black line in the stressed ones). In order to illustrate the associations between units at different levels there are also lines that show the interpolation between the values of the highest stressed syllables at each level. For more information concerning the stylization method used in these representations of melody of speech, see Mata (1999).

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I do believe that the research results mentioned above are relevant to language teaching. Obviously, I am not suggesting that, as far as L1 teaching is concerned, intonation needs to be taught. Rather, what is essential is to raise students’ awareness of language intonation resources. However, as far as the teaching of foreign languages is concerned, students must learn the patterns of intonational organization in the target language. They also need to learn the contrasts of meaning associated with these patterns and the ways they can be used by native speakers in authentic communicative situations. Just like it happens with other levels, namely the segmental one, languages have similarities but they also have fundamental differences at the level of intonation. These can be related both to differences in intonation categories and/or to differences in phonetic realization. Differences can also relate to the contexts in which categories are used and to the functional contrasts established by those categories. Thus, I argue that foreign students need an explicit teaching of intonation in order to become competent listeners and speakers in the target language.

The evidence I’ve just presented is the result of studies applied to teaching and also of research done on fundamental aspects of the Portuguese language and their variation (these are only brief examples; I could have referred to many more: research on language acquisition and development; research on the impact of explicit knowledge on planned speech, as well as on writing,….). The results presented are potentially relevant to the planning of education practice and their impact should extend beyond teacher initial education programmes in a less shy way. If the individual learner exhibits knowledge in a non-explicit manner, then the teacher has to exhibit explicit knowledge and the teacher trainer has to give teachers access to a body of knowledge and principles that will support educational practices; he/she has to encourage teachers to practise and develop a set of skills that will allow them to achieve high standard objectives. Furthermore, for this to happen, it is also essential that the training of those who are already language teaching professionals is organized to develop their metalinguistic knowledge regarding the properties of the language they teach.
4. Competences and Roles of a Teacher of Portuguese

Is communicating with the students still an important feature of the teaching process? Is there no connection at all between the students’ learning success and the teachers’ ability to communicate orally?

If teachers were more conscious of these and other dimensions of the structural organization of the language they use when constructing their own discourse, perhaps their fluency and clarity of discourse would also be higher – and students do value that! It may seem trivial but as Fillmore and Snow have recently argued, “to communicate successfully, teachers must know how to structure their own language output for maximum clarity and have strategies for understanding what students are saying, since understanding student talk is key to analysis of what students know, how they understand, and what teaching moves would be useful” (Fillmore & Snow, 2000: 5) – which reminds us of another key function that teachers have: to evaluate.

Moreover, teaching continues to be fundamental for mastering a language, for the development of communicative linguistic ability, not only in reading and writing, but also in speaking and listening. This implies that teachers have a fundamental role: they have to know how to choose language data to be analysed and reflected upon; they also have to create (and evaluate) didactic materials and decide on the sequence of activities necessary to meet the established objectives. In brief, they have to distinguish what is pedagogically valid from what is not.

For this purpose, it is important to know, for example, that spontaneous speech does not need educational intervention in L1 but that the same is not true for second and foreign language. It is fundamental to distinguish spontaneous speech from planned speech and oral reading. The difference between these types of speech can be determined not only by examining the structure of intonation, but also by examining the temporal and syntactic structure… (cf. Duarte, 2000: 388-391). It is this that precisely presents one of the major linguistic difficulties for learners. Oral reading requires practice and students should be exposed to oral productions of excellence.

Professionals cannot ignore crucial areas in educational intervention, such as: 1) knowledge about oral production, about the uses of spoken language in formal contexts, in general, and about its use in an educational environment, in particular; 2) knowledge about written language (in the ‘world on paper’ as well as in the ‘post-typographic world’) and about the relationships between writing and speech; 3) explicit knowledge about language.
And once such a relation between language and the key functions of these teachers has been established, the importance linguistics has for education and for the basic training of teachers and for teacher professional development becomes clear.

5. Conclusion

Making a contribution to the quality of teacher training may demand an effort. I would not call it a problem, rather a challenge. The challenge of helping to shape fingerprints, which will reflect willingness, competence and rigour:

**Willingness**

- Readiness to experiment with materials, resources and methods in a balanced way, allowing for a well-structured innovation in educational practices;

**Competence**

- Ability to integrate spoken language skill development and ‘electronic literacy’ into the body of knowledge and competences which form the basis of language teaching – along with the classic reading, writing and grammar;

**Rigour**

- Demanding training which is based on research results – both fundamental and applied.

This is the goal of our work. And some good examples are the course programs we offer at FLUL’s Educational branch, which are online, as well as the projects involving trainees we have been promoting, both on the potentialities of the *Internet* applied to educational purposes and on reflexive practice: on spoken language skills, reading, writing and on explicit knowledge about language.
6. References


