

TEACHING ENGLISH FOR SPECIFIC PURPOSES: THE GUTs TO DO IT

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1. THE ARROW OF TIME: STEP 1¹

I would like to start this paper by asking you to travel back in time to the mid seventies and consider for a moment the picture of **Teaching English as a Foreign Language** in the context of the Portuguese system of education twenty years ago.

Like many other students, I finished my course of studies in English and German Philology in 1975. Soon afterwards, a job opportunity in **Teaching English as a Foreign Language** came up at the Faculty of Arts of the University of Lisbon, where I had taken my degree. Without quite realizing how, and with no **specific training** in TEFL, I suddenly found myself staring at a group of language students — most of them older than myself.

For the benefit of those who are not familiar with the Portuguese system of education, twenty years ago this was nothing out of the ordinary: students would take their degrees in **English and German Philology** («Filologia Germânica») or in **Portuguese and French Philology** («Filologia Românica») and, as a rule, become teachers of English, German, Portuguese or French at secondary schools. Only later (sometimes many years later) would they go through a period of in-service training (the much-dreaded «estágio»), if they wanted to climb to the top of the promotion ladder as secondary school teachers.

No pre- or in-service training was envisaged for the minority of philology students who became teachers at the university: such people would primarily teach literature, culture or linguistics, and it was expected that they should fulfil other requirements (basically of an academic nature) to progress in their career.

But, included within that minority, there was yet another minority. Theoretically, foreign languages were taught by native speakers; in practice, at least in the English Department of the Faculty of Arts of the University of Lisbon, non-natives with the right qualifications could also become teachers of **English as a Foreign Language**.

¹ According to Stephen Hawking, an **arrow of time** is «something that distinguishes the past from the future, giving a direction to time» — cf. Stephen W. Hawking, *A Brief History of Time — An Interactive Adventure with Stephen W. Hawking created by Jim Mervis and Robit Hairman* (Oklahoma City: Crunch Media Corporation and Apollo Partners Ltd., 1994), chapter 9, p. 5.

2. THE ARROW OF TIME: STEP 2

This brief explanatory digression brings us to **the first question** that has a direct bearing on the contents of this paper: should the syllabus of English language classes for students who are likely to become teachers of **EFL** themselves be truly **general** or should it be **goal-oriented**?

In the past twenty years several changes have been introduced into the Portuguese system of education to deal with this problem. Today, students who make up their minds to become language teachers either opt for a degree in teaching from the very start of their academic career or follow a postgraduate course in teaching after finishing their «licenciatura» (roughly equivalent to a B.A. with Honours).

This change of policy is obviously in keeping with the **shift from general to specific** that has led in the last few years to the birth of a variety of areas of study, in particular in the field of **Science and Technology**.

The **second question** I would like to ask is the following: how **specific** is the teacher training provided by universities or other colleges of higher education in Portugal today?

Mastering strategies in **Teaching a Foreign Language** at primary, secondary or tertiary level is certainly a good start. To my mind, this is the true realm of **Teaching Languages for General Purposes**, if by those three levels we mean primary school, secondary school and non-vocational adult education.

But when it comes to **Teaching a Foreign Language for Academic or for Occupational Purposes**, we enter the realm of **Teaching Languages for Specific Purposes**. In this light, even students of **Modern Languages** are in fact being taught **Languages for Academic Purposes**, possibly together with, or to be followed by, **Languages for Teaching Purposes** or **Languages for Translation Purposes**².

Returning to the **second question**, and concentrating now on those students majoring in English, I would like to propose that they should be:

- i. made aware of the **specificity** of their own syllabus design;
- ii. given the option of being trained in **Teaching English for General Purposes** or **Teaching English for Specific Purposes**.

At this point some of you might well be asking yourselves the **third question**: but where is the job market for people with qualifications of that kind? To this I would answer: the job market is extremely promising, if only we can succeed in convincing academia and education authorities of this fact.

3. THE RELEVANCE OF LEARNING LANGUAGES FOR SPECIFIC PURPOSES

To try and make the last point a little clearer, let us step into our imaginary time machine once again and travel back to the early seventies.

² Cf. Tom Hutchinson and Alan Waters, *English for Specific Purposes — A Learning-Centred Approach* (Cambridge : CUP, 1987), p. 17, where we can find a drawing of *The tree of ELT (English Language Teaching)*.

Cf. also the appendix included here, where I present a simplified version of that drawing and try to adapt Hutchinson and Water's model of **ESP (English for Specific Purposes)** to the present-day system of Portuguese education, especially as regards **EST (English for Science and Technology)**.

Twenty-five years ago there were basically three state universities in Portugal: one in Lisbon, one in Coimbra and one in Oporto. Today these three remain, but they no longer hold the monopoly of Portuguese higher education. There is **a growing number** of other state or private colleges of higher education (be they universities, polytechnics or other institutes), all round the country, catering for the needs of **a growing number** of students planning to specialize in **a growing number** of areas.

But the picture has not changed only in this respect. Today not only students of **Modern Languages** are expected to master one or more foreign languages; students of **Science and Technology, Business and Economics**, or other branches of the **Social Sciences** (e.g. **History and Sociology**) increasingly need to have a good command of at least one foreign language.

And the **fourth question** is simply: whyever should this be? Certainly not just for the purpose of reading reference books, as was perhaps the case in the early days of **Languages for Academic Purposes**.

The extent to which it is necessary to read books that are not available in Portuguese will vary from area to area; but the need for such a bibliography is there in most (if not all) areas. The difference is that now it is not only necessary to **understand what is written** but also **what is said** in a foreign language. What is more, it is also necessary to be able to **write** and **speak** that language reasonably well.

For instance, visiting scholars may not know Portuguese and so lecture in their own or some other more widely spoken foreign language. Students themselves may go abroad on international exchange programmes or do postgraduate work partly or wholly under foreign supervision. International meetings, even in Portugal, may be held basically in one or more foreign languages, and, above all, to progress in one's field of research, it is essential to keep up to date with what is being made available through the international media, where one day one's own contribution may well appear.

To cope with all this, any student will have to be competent in **The 4 Skills**, which means that **Teaching Languages for Specific Purposes** must include **aspects of a general nature, not adopting a clean slate approach** towards the learning process that went on beforehand, but rather gearing it to a number of **more specific goals**.

4. A FUZZY MODEL FOR TEACHING LANGUAGES FOR SPECIFIC PURPOSES

At this point, it should be clarified that in the context of **Teaching Languages for Specific Purposes**, **specificity** does not only involve vocabulary. Every area has its own terminology, and this in itself constitutes an extremely rich field of research, with obvious connections with **Translation Studies**: as in the latter case, terminology and subject-matter have turned **Teaching Languages for Specific Purposes** into an interdisciplinary activity, often requiring the collaboration of experts from other fields.

None the less, in the context of **Teaching Languages for Specific Purposes**, **specificity** also requires that we train our students in particular comprehension and production skills, where the focus is not so much on their learning technical terms in a foreign language, but rather on their improving their ability to process and generate information in that foreign language.

But is this not the goal of any form of language teaching? (The **fifth question**) It most certainly is, which once more points to an intimate connection between **general** and **specific** within **Teaching Languages for Specific Purposes**.

Therefore the basic difference between teaching English to a group of students majoring in **English for Teaching** and teaching English to a group of students majoring in **Physics and Chemistry** lies in the choice of reading materials and discussion topics — or does it? (The **sixth question**).

Not quite is the answer. If we leave aside the questions of subject-matter and terminology (**specific to each of the areas**), we can say that what is achieved by the latter should also be achieved by the former, but that is as far as it goes.

In other words, both groups should be trained in note-taking, outlining and summary-writing (**global skills**), and in stress, intonation and pronunciation (**general features of the language**), for instance, but students majoring in **English for Teaching** should also develop a deeper insight (in part **analytic**) into the subtleties of language use (by definition **specific**).

In short, we may infer that **Teaching Languages for Specific Purposes** is by nature **fuzzy**, in the sense that it is only **partially specific**: as in **Fuzzy Logic**, **everything is a matter of degree**.

To quote Ian Stewart:³

In classical logic, a statement has a truth value of either 1 for true or 0 for false. The statement «the sun is shining» has a truth value of 0 if it is cloudy. In general, statement P has a truth value p equal to 1 or 0. In fuzzy logic, a statement can have a truth value of between 1 and 0. If a cloud obscures a quarter of the sun, then statement P has a value of 0.25.

In another article on **Fuzzy Logic**, we find:⁴

Fuzzy degrees are not the same as probability percentages, a point that has eluded some critics of the field. Probabilities measure whether something will occur or not. Fuzziness measures the degree to which something occurs or some condition exists.

5. IN DEFENCE OF A USER-FRIENDLY WORKING ENVIRONMENT FOR ESP

In my opinion, a solid knowledge of one's own major subject is the best starting point for anyone being initiated into the art of teaching.

If, when they first step into the unfamiliar environment of **Science and Technology**, inexperienced teachers of **ESP** realize that they are treading on safe ground — **their role is to teach language** — they will not fear what awaits them. In time, they will discover the best way to design their course, the best syllabus to follow, the best materials to use, and fundamentally, the best strategy to adopt for teaching their students.

But **making it work** is not something that should be left to the teacher alone. After all, a language teacher's commitment in itself is not sufficient to work miracles in an uncongenial environment.

By an **uncongenial environment** I mean, in particular, oversized mixed-ability classes, where many students are false beginners or else have never got beyond elementary level in the foreign language. This is usually the result of their having had only a few years of English at secondary school and/or having systematically failed the subject there. Students with this profile feel at a loss and are understandably reluctant to study a subject which they had hoped they would never encounter in their lives again.

³ Ian Stewart, «A Partly True Story», *Scientific American* (February, 1993), 86.

⁴ Bart Kosko and Satoru Isaka, «Fuzzy Logic», *Scientific American* (July, 1993), 62.

As argued in section 3, learning foreign languages is essential for those specializing in **Science and Technology**. Yet a great number of students in that area know very little English.

How are we to untie this **Gordian knot**? How can **ESP** teachers do away with students' «parti pris» and haul them up to a minimally acceptable level in English? (The **seventh question**).

I fear that my experience tells me it is not our role to do so. What these students need is a complete and thorough course in **General English**, not a course in **English for Specific Purposes**.

If both kinds of course can be provided by the institution they are attending (possibly meaning more jobs for teachers of **EFL**), it makes sense that **Learning English as a Foreign Language** should be compulsory for students of **Science and Technology**. If not, then **ESP** should be part of their curricula, but it should be optional and only open to students who can prove that they have reached at least intermediate level in English⁵.

Restricting access to **ESP** as suggested here would reduce the number of students per class, as well as narrow **the knowledge gap** between them. A decrease in the number of students attending **ESP** per semester or academic year could also turn out to be an advantage in the long run; i.e. the same teaching staff could provide more teaching time per week or even a full course in English from first year to graduation.

On the other hand, given the optional nature of the subject, students who are already highly proficient in English could take advantage of their sound knowledge of the language to raise their final average mark, or else concentrate their efforts on other tasks. Students with this profile may be a minority, but their exceptional status should be recognized and properly exploited from the start.

6. THE QUEST FOR UNIFICATION

In arguing for the non-compulsory status of **ESP** in the preceding section, I focused in particular on **English for Science and Technology**. In this same context, I would also like to suggest that a modular approach to course design would perhaps best help students improve their English.

After taking a placement test in written and oral **General English**, students would be advised to enrol in one or more learning modules, depending on the results of this prior screening⁶.

Such learning modules could vary in terms of level (e.g. advanced **versus** intermediate), as well as in terms of targets (e.g. improving writing **versus** oral skills). But, broadly speaking, they should be organized on the basis of **genuine needs analysis**, taking into account students' working knowledge of the foreign language as they begin higher education and the **specific purpose** for which English will be a useful tool for them in school and later on in their professional life.

In the **specific** case of **English for Science and Technology**, a proper understanding and appropriate use of **discourse** is the vital factor⁷. Consequently, in the course materials available

⁵ However relevant English may be in the modern world, those who are below this level should not be forced to take **ESP**: they will hamper the progress of the rest of the class, overburden the teacher and not get any real advantage out of their efforts. Instead, they should be advised to get some kind of outside coaching; e.g. attend a language school, where they can follow a course in **General English** appropriate to their needs.

⁶ This test would also serve the purpose of eliminating those below intermediate level.

⁷ Cf. Louis Trimble, *English for Science and Technology — A Discourse Approach* (Cambridge: CUP, 1985).

on the market today it is standard practice to insist on developing scanning skills, learning the use of cohesive ties, or converting graphs and charts into text, to name but a few examples. In most (if not all) of them, however, **traditional comprehension and production exercises** are also included at word, phrase, sentence or discourse level.

Materials evaluation is not the purpose of this paper; still, I would like to stress here the relevance of **multimedia materials** for those learning **ESP** today. For example, standard reading assignments can be followed up by small research projects into some of the topics dealt with in the text, relying for that purpose on encyclopedias or other materials available on **CD-ROM**, or even on **The Internet** — an endless source of information on the most recent breakthroughs in the world of **Science and Technology**.

To conclude, for those holding a degree in English, the prospect of **Teaching English as a Foreign Language** in the uncharted territory of **Science and Technology** may at first appear an awesome task, undoubtedly taking some GUTS — in the idiomatic sense of the word⁸.

But note that the title of this paper is **The GUTs (not the GUTs) to do it**. What connection can there be between the acronym gut (used in the plural) and **Teaching Languages for Specific Purposes?** (The eighth question)

In the world of modern Physics there are scientists who defend the idea that «nature's seemingly distinct forces are but facets of a single, symmetrical jewel»; so far the search for unity has given rise to a number of GUTs — or Grand Unified Theories — paving the way (or so they hope) for the complete unification of different manifestations of a single underlying force in nature⁹.

In Stephen Hawking's **A Brief History of Time**, we find a chapter on The Unification of Physics, where at one point he states:¹⁰

«In previous chapters I have described general relativity, the partial theory of gravity, and the partial theories that govern the weak, the strong, and the electromagnetic forces. The last three may be combined in so-called grand unified theories, or GUTs, which are not very satisfactory because they do not include gravity».

At the beginning of the same chapter, he also comments:¹¹

«As was explained in the first chapter, it would be very difficult to construct a complete unified theory of everything in the universe all at one go. So instead we have made progress by finding partial theories that describe a limited range of happenings and by neglecting other effects or approximating them by certain numbers. (...) Ultimately, however, one would hope to find a complete, consistent, unified theory that would include all those partial theories as approximations (...). The quest for such a theory is known as "the unification of physics"».

Returning to the more familiar setting of **Teaching English as a Foreign Language**, if graduates in English find an adequate working environment in the school where they are expected to teach **ESP** to students of **Science and Technology**, and adopt a methodology where **general** and **specific** are not at odds but are instead closely linked, they need not feel insecure or frustrated.

In time these graduates will develop their own contribution to a Grand Unified Theory or even to the complete unification of **Teaching English as a Foreign Language** — a contribution

⁸ Cf. Hutchinson and Waters (op. cit., p. 1, intro.) : *The City of ELT* — a fairy-tale version of the difficulties facing those forced to leave «the gentle landscape of English literature and language» for a «previously uncharted land», «inhabited by illiterate and savage tribes called Scientists, Businessmen and Engineers».

⁹ Adapted from John Horgan, «Particle Metaphysics», *Scientific American* (February, 1994), 71.

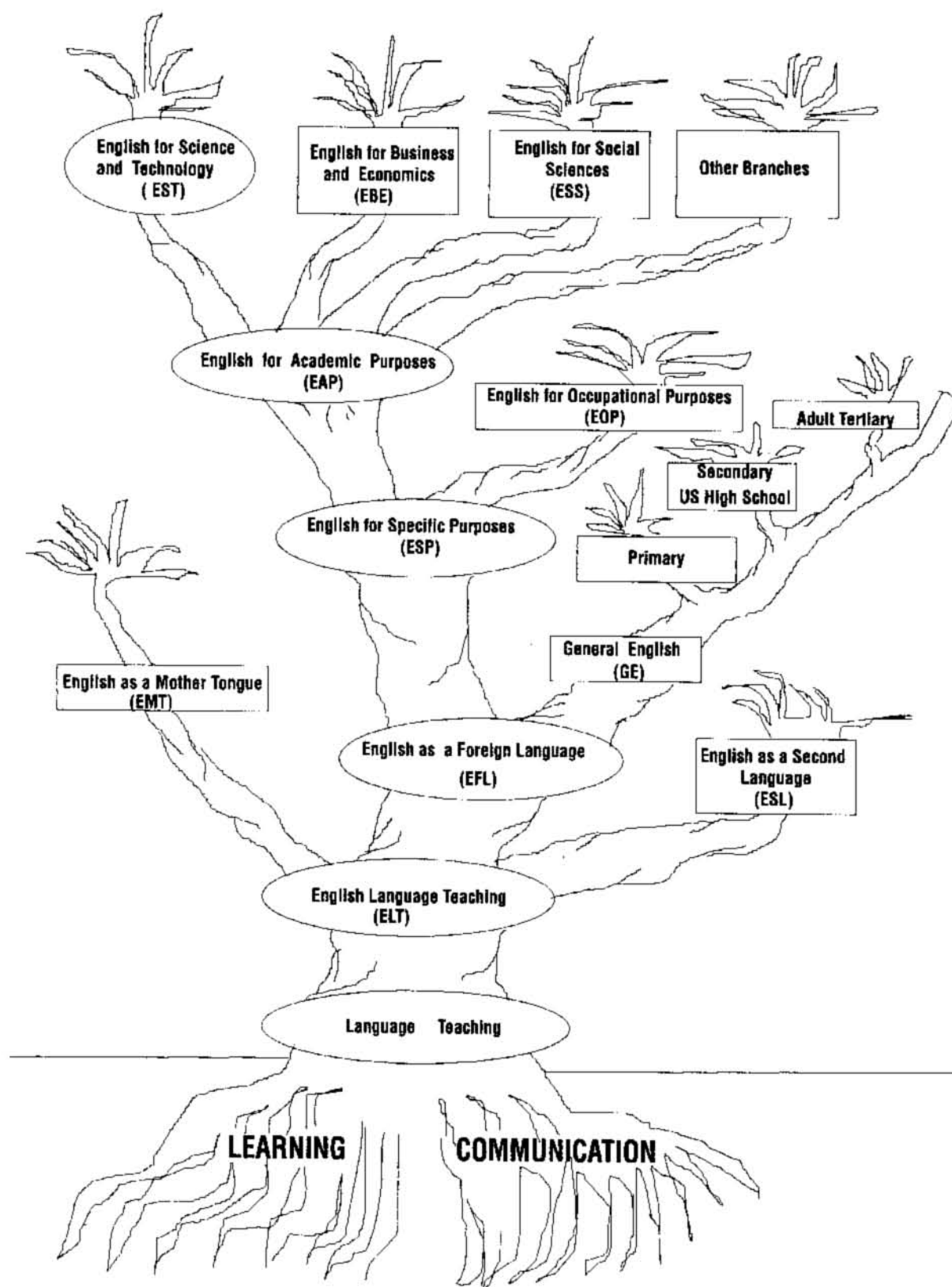
¹⁰ Hawking (op. cit., p. 4, ch.10).

¹¹ Hawking (op. cit., pp. 1-2, ch.10).

that will be just as valid as the one to be made by their fellow-students teaching **English for Specific Purposes** to students of **Social Sciences** or other areas presumably not so far removed from their own academic background.

REFERENCES

- HAWKING, Stephen W. — **A Brief History of Time** — *An Interactive Adventure with Stephen W. Hawking created by Jim Mervis and Robit Hairman*. Oklahoma City: Crunch Media Corporation and Apollo Partners Ltd., 1994.
- HORGAN, John — «**Particle Metaphysics**». *Scientific American* (February, 1994), 70-78.
- HUTCHINSON, Tom — and Waters, Alan. **English for Specific Purposes** — *A Learning-Centred Approach*. Cambridge: CUP, 1987.
- KOSKO, Bart, and Isaka, Satoru — «**Fuzzy Logic**». *Scientific American* (July, 1993), 62-67.
- STEWART, Ian — «**A Partly True Story**». *Scientific American* (February, 1993), 85-87.
- TRIMBLE, Louis — **English for Science and Technology** — *A Discourse Approach*. Cambridge: CUP, 1985.



[Adapted from Hutchinson and Waters 1987]