Principles of ESP course design

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Introduction

Here is my summary of the guiding lights, the principles which need to be followed for successful course design for ESP. They are based on experience learning French, my research, my observations, and my extensive interaction with young teachers who are required, often at short notice, to teach ESP. Some of these principles are controversial. They would make an interesting document for discussion in any ESP teacher training courses. They also need to be read and taken to heart by the policy planners whose expectations so often limit and restrict English teaching.

What I write below applies to intermediate and advanced students of English.

Summary of the principles

1. Content difficulty should approximate the level in their normal courses
   This means for instance, you cannot expect medical students and doctors to study high school biology. Medical students need University Level content. And if this means that the English teacher cannot understand the science, then so be it: let the English teacher learn the science.

2. Content should lead language
   The content itself should be useful to the students, and should be stretching in its own right. This does not mean that the texts used are always complicated: there are plenty of genres, such as blogs, the latest news etc where the content is new and interesting and still covers the needs to reinforce basic language.

3. The exercises on the material should be authentic, as well as the material itself
   This means an end to trivial tasks, and a major focus on real world comprehension, inferencing, and debating.

NB, these points cannot be stressed too strongly.

I have seen far too much ESP material where the content is school level - humiliating the students.

If the Arts trained teacher cannot cope with this content, I suggest they find a subject specialist good enough in English who can. I seriously think the subject specialist needs to be far more involved in teaching English than many currently are. The other alternative is for the teacher to learn - to become knowledgeable in the degree subject of their students. This is hard, but not impossible.
4. There should be massive exposure to content and language
   This massive exposure should often come from many directions simultaneously.

5. We need to be using authentically long texts for listening and reading: See below

6. Communication gaps should be massively exploited
   It is well known that language is learned fastest when there is a desire to know, or when there is controversy.

7. Methods should draw inspiration from content teachers
   The comparison to be made is with how L1 learners advance and learn a new technical subject in L1. Therefore, ESP should draw inspiration from the content teaching methods in L1 (which frequently have high demands on language).

8. Elaborate, but do not simplify
   Elaborated texts retain the original complex authentic text, with all the associated context, redundancy, and language clues. They add extra supporting material, and this elaboration is much more than translations or synonyms. It can include supplementary material, and extra extended explanations. In short, elaboration should not lead to simplification. Rather, the material is repeated in another linguistic form.

9. Train students to handle difficult texts. Just as in advanced L1, we should not expect students to understand every idea or word
   Native speaker academics frequently do not understand every single idea or word in a text. Yet they are capable of using the texts. Therefore, the language teacher should not expect students to fully understand every text.

10. Consider using translation as a scaffolding for weak students: See below

11. Speed up learning by drawing on the research comparing French and English
    Of course, this research is hard to find, except on this website! Few linguists have been willing to do the careful legwork needed for such comparisons.

12. Massive exposure, and extracting meaningful information should be the focus - NOT language points
    This point derives from the fact that for students from B2 onwards (upper intermediate) there is no obvious progression in language points and grammar. Students should know the main grammatical patterns. They should know the first 2000 most frequent word families, plus the academic list. They need to practice their skills in acquiring language, picking up the language they need. From B1 onwards, progression is not easy to measure: the language fields to be covered are flat and vast. By all means have language points, language spots etc - but no systematic treatment of language.
13. A course designer should have three syllabuses: a content syllabus, a language syllabus, and a learning/skills syllabus. The ‘content syllabus’ should be related to the way the specialists divide up the subject. See below.

14. Students need exposure to the multiple genres within their speciality. These genres can differ widely in language and style.

15. Ideally, another subject should be taught in English, and failing that, compulsory readings in English should be set by the subject specialist. See below

Commentary

5. **We need to be using longer texts for listening and reading**

Most authentic texts are *NOT* short. Short texts are harder to interpret than long texts because short texts lack discourse clues and they lack redundancy. Our objectives are to train students to handle authentic texts, which are usually several minutes long (speech) or at least two pages of written text.

I will be critical of myself. A few months ago I was asked to help a student of agriculture to understand a paper. I first checked the journal, date, style etc, then read the abstract. Some parts of the abstract I understood, some I did not. I then jumped to the appropriate part of the article to have those parts clarified.

I as a native speaker find abstracts difficult - even when the subject is something I know about. Therefore, using abstracts (which are conveniently short for teaching), is actually more difficult than the longer articles. An abstract alone also deprives students of the authentic experience of extracting relevant meaning from a long text.

Similarly for listening. It often takes someone at least two minutes to get their ear round the accent of a new speaker and to get into the topic they are talking about. We have known this for years. Long texts are both more authentic, and more natural, and train students to cope with repetition and redundancy. In short, higher order skills can be trained only with longer passages.

Fortunately, nowadays, in addition to print, there are many podcasts available, often in the Specialised English.

10. **Rough translations as a scaffolding**

Particularly to help weaker students, translated versions can be used. These are sometimes already available on the web. Where they are not, then the scaffolding of rough translations provided by Machine Assisted Translation can provide a support for the weak. Fortunately, English to French is a reasonably strong language pair for machine translation. Opinions vary as to which is the best engine. Reverso is my current favourite based on an initial investigation.
Note that Google is investing heavily in English-Arabic and the quality has dramatically improved recently - though it is still not as good as English-French.

This use of the scaffolding of a rough translation of long texts has the following benefits:

a. The teacher will be using a method which is often popular with the students, who may well use such translations anyway.

b. Rough translations reinforce a teaching aim: to train students to pick out the meaning even when they do not understand every word. Rough translations add the confusion of grammar and misleading words. Rough translations train the tolerance for error, and train the tolerance for incomplete information.

c. Rough translations provide a crutch, an aid for the student who is overwhelmed by a long text, so that they will dare to read longer texts, knowing that a support is available. Since the teacher desires students to benefit from longer texts, a rough translation will keep the weak student from giving up.

d. Rough translations enable genuine longer texts to be used which otherwise might have taken too long for the weak students to study.
   1) Longer texts even for weak students mean that top down strategies for longer texts can be practised.
   2) The much needed inferencing, evaluating, and summarising questions can be used to a far greater extent than is possible with short passages.
   3) Real world authentic texts often have a high degree of redundancy. Slow bottom up readers who need to recognise every word find such redundancy a problem. The scaffolding of a rough translation helps the weak student to retain the thread without getting lost in the details.

e. Because rough translations are imperfect and have problems, they encourage students to rely on the original English text, and to use the support only when needed.

13. A course designer should have three syllabuses: a content syllabus, a language syllabus, and a learning/skills syllabus. The ‘content syllabus’ should be related to the way the specialists divide up the subject.

I was once asked to add lesson objectives to my lesson plans, based on the latest version of Bloom’s Taxonomy of Educational Objectives. Am I alone in feeling that such an exercise was pointless? It was merely an exercise in recasting the material in another set of terms. While the Taxonomy may work well for beginner courses, it seemed rather useless for the more advanced material where specific highly detailed lesson objectives are hard to state, or are artificially derived after the lesson has been written.
Of course, in ESP we traditionally look at the several syllabuses within a series of lessons. The three most important ones I will discuss below. The example comes from Medical English.

1. **Content syllabus and difficulty**
   a. **Content syllabus.** This is determined by the subject. My aim in Medical English is to select texts over five courses which cover the main systems and subjects. Subjects divide up their content in different ways. For Medicine there are several ways of doing this. These include:
      1). **Preclinical**, such as anatomy, physiology, biochemistry, psychology etc, and **Clinical**, such as Cardiology, Psychiatry, etc
      2) **Systems**, such as the cardiovascular system, the nervous system etc
      3) **Cross subject** courses such as
         a) The History of Medicine  
         b) Embryology  
         c) Growth and Aging (books by JM Tanner etc)  
         d) Demography  
         e) Epidemiology  
         f) Research Methodology
   b. **Academic Content difficulty** should match the content difficulty of the students

2. **Language syllabus**
   a. From level B1+ onwards there is no obvious progression. Therefore I would choose to start with numbers, symbols, equations, and affixes, and move upwards towards multiple genres.
   
   b. Students at this level need massive exposure to authentic material.
   
   c. Multiple reinforcing routes should be used, such as hearing AND reading. MP3 players are common. Students can listen to English outside the classroom. Therefore most texts need recording. Online they can both read and listen, or even read, listen, and watch (subtitled video)
   
   d. The material should be authentic.
   
   e. The activities and questions should be authentic.
   
   f. Elaboration, not simplification is needed.
   
   g. Speech and pronunciation can be practised, by regular use of ‘shadowing’.
   
   h. Students should be trained to extract information from long texts and difficult texts. Even native speakers, lecturers in Medicine, do not always understand what they read. But they read for the information they want. Therefore, this skill is authentic.
i. Students need exposure to the language used in the many genres of their subject. For Medical students this would include review articles, blogs, news reports, podcasts, and various reports such as the Cochrane database of evidence based medicine, which, interestingly, often gives a ‘plain language summary’. Therefore a language syllabus will systematically present examples from these different genres.

The Language syllabus is clearest when we consider vocabulary.

The first 2000 Word families are common to over 80% of all academic texts. The Academic Word List (http://www.academicvocabularyexercises.com/) is 570 Word families. In academic texts, over 8% of words come from this list. The other words are subject-specific words and rare words.

The implications are that the 2000 Word list and the Academic Word List need to be taught. Beyond that, word learning skills need teaching. For B2 level students should already know the 2000 Word List - and I send them to the internet to teach themselves if they are not sure. In Semester 2 the Academic Word List can be checked.

3. Skills and learning syllabus

a. In medicine, even native speaker doctors do not always understand everything they read. Therefore it is vital to teach students to read texts and make deductions, follow the reasoning, etc, without understanding all the words.

b. The tasks (such as comprehension questions) must be authentic. I have seen professional online teaching material for retraining doctors, and I have even taken the training and passed some of their online tests. I have used these ideas in my lessons.

Summary

1. We should focus more on comprehension questions than vocabulary or grammar.
2. We should build on what students know, and stretch them
3. Texts should teach something new and interesting
4. We should use many inference and evaluation questions
5. We should train students to extract information
   ++ from long texts
   ++ from difficult texts
6. As much as possible, the language learning activities themselves should be authentic.

15. Ideally, another subject should be taught in English, and failing that, compulsory readings in English should be set by the subject specialist.

I am firmly convinced that from level B1+ content must drive language learning. Les étudiants vont apprendre le langage dont ils ont besoin. My ideal would be for one subject each year to be taught in English. In this way the number of hours that included English could be doubled. Suitable subjects in medicine could be, as mentioned above in the Content Syllabus:

a) The History of Medicine
b) Embryology
c) Growth and Aging (books by JM Tanner etc)
d) Demography  
e) Epidemiology  
f) Research Methodology, including how to research the internet, evaluate published material etc.

This list may surprise you. The History of Medicine, particularly focussing on the last 100-150 years is replete with lessons to be learned from history. Also, each major discipline can be focussed on separately, hence introduced in a way which covers basic language and ideas. Embryology is a notoriously difficult subject. In some ways it is a textbook of history! A textbook of how human life develops from one cell to birth. Again, all parts of the body, all the systems are described.

If there is a shortage of subject specialists who can teach in English, there are several solutions:  
1. Send subject specialists abroad to learn. They can then have the pleasure of doing some research, and learn English at the same time.

2. Make use of the free downloadable lectures and video courses that are increasingly available. Let students watch these lectures in English, then provide additional help and commentary.