

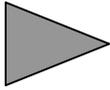
A MODULAR TESTING FRAMEWORK

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Abstract

This article presents a non-prescriptive modular approach to designing tests in relationship with teaching English - using certain coursebooks - to engineering students of the Bucharest Polytechnic. The main aim is to create ways of developing a database of tests pertinent to each particular book. The role of a modular Test Specification, as well as that of a Taught Materials Card is described. The possible limitations and risks taken in various concrete situations are briefly discussed.

Keywords: test design, ESP, test specification, test data base, modular approach to test design.



Teaching and evaluation – some key issues

Once a group of teachers starts using a certain course book in a more or less standardized way, some concerns will always emerge over testing-connected aspects. They could be summarized here as questions which most members of the teaching profession have posed lately.

The first question reflects an increasing concern over the requirement of consistency in the principles underlying materials writing/teaching and testing. In the second place, nonetheless equally important, teachers of technical universities at country level, who have used in-house created course books, such as “E.S.T. – PROSPER with English” (1996) and “English for Professional Communication” (2004) and who have quite often had to supplement and/or adapt them to their concrete teaching situations, have growingly debated on the necessity of creating a pattern of assessment common – at least in its very broad lines – to all the institutions involved.

Consequently, we have seen emerge an increasing awareness of the need to find ways to initiate a (regularized) pattern of assessment. Moreover, in most universities there has been introduced a form of certification (English Proficiency Certificate), required of all graduates at various stages in course of their studies, mostly after year two.

Considering both the situation described above, as well as the fact that I have been privileged in receiving qualitative training in assessment matters, I have focused my interest in designing tests in relationship with the course book in use. The perspective I have adopted can be called a non-prescriptive one, since I consider my work as a starting point only. Thus, my aim here is simply that of showing fellow teachers that there may be certain productive ways of (net)working in such a way as to build up – in time, of course – a real testing database to be used alongside our course books.

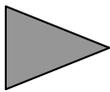
In what follows a review of the constant vs. variable points of reference will be made that should characterize the approach to designing and administering achievement tests consequent to teaching on the basis of a course book. Thus, it is

important to note that the objectives teachers may have in assessing engineering students' language skills are not only, in West's (1995) terms, "mere measurement", but also "a process of educational assessment".

Nowadays in our universities teachers assess not only their students' language level after a rather long time interval by means of an end of year test. Tests are also administered with progress and/or diagnostic objectives, as teachers are interested in testing back either after one part of the course (after one unit) - when the consistency of topic is under focus, as our course books are mostly topic-based, but also after several sections from different units - in the case they are interested in measuring achievement as far as a certain (sub) skill repertoire is concerned (for instance, writing). However, given the well-known and frustrating time constraints we have to cope with taking decisions, such objectives have to be incorporated in the features of the achievement test.

Teachers should permanently have in mind the relationship between the approach to language and the methodology of teaching, on the one hand, and the forms of evaluations, on the other. Therefore, in very broad lines, again, the communicative approach to the teaching of English underlying the course books should be maintained in designing the assessment materials.

This certainly does not mean that the tests should assess *exactly* the taught material; this would be impossible to achieve. What is, however, feasible with an achievement test is to "*parallel*" the taught materials in their *broad lines*. I maintain that these broad lines are actually represented by the so-called '*big umbrellas*' consisting of the main topics, as well as of the (sub)skills under focus, not neglecting the grammar aspects involved, and observing the level of the teaching materials.



A mathematical demonstration

The course books we are currently using allow and even encourage a modular approach to testing. In support of this view, a mathematical demonstration will be presented below. Thus, we should keep in mind the following:

a) in most technical universities the course duration and format is of 28 two-hour classes per year,

b) each unit of a course book such as those mentioned above is meant for about 8 study hours, so about 6 units can be approached per year, as sometimes some other activities should be allotted (such as mid-term projects/tests, remedial work, supplementary materials to some units etc),

and

c) considering the students’ specific needs and/or interests, each teacher can decide (or negotiate with the learners) over a certain combination of units (or unit sections), to which adaptation and/or development can be added. Therefore, the teachers using the book can teach a huge variety of unit combinations, different from case to case and from year to year.

For more accuracy, if we transfer this data into a formula, we will get the following. Given that each teacher uses approximately 6 units/academic year, and that there are 10 such units in the above quoted EST book, for example, in order to get the total number of possible combinations of units that the teacher can use, the formula of the combination calculus is applied:

$$C n^k = \frac{n!}{k!(n-k)!}$$

If **k = 6**

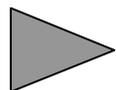
and

n = 10

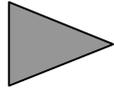
then we get

$$C10^6 = \frac{10!}{6!(10-6)!} = 210 \text{ combinations}$$

To this number further unit sections and adaptations/supplementary materials should also be added if we want to get the real picture of the multiple possibilities reality can offer.

 **A modular test specification**

An example of a part of a regular, let’s call it ‘traditional’ specification format is given below. Although it has obvious positive features, we prefer to replace it by a modular specification table which will be presented below, as well.



Test Specification

OBJECTIVES: Students can:

- A. **Listening** – create a parallel visual representation of the oral message by integrating terms to computer process description
- B. **Reading** - 1) infer from technical texts and understand implicit info; 2) transfer info into a visual diagrammatic form.

SKILLS:

- A. **Listening** – L2/v/c/e/d/w2 – information transfer
- B. **Reading** – 1) R2/e/c/t (letter code) – matching; 2) R2/e/c/v/w2 – information transfer

CONTENT:

Language: general scientific and technical vocabulary and structures (taken directly from coursebook), vocabulary of every day life; present perfect, passives, imperatives.

TOPICS: Computer-related jobs, instruction manuals.

FORMATS:

- A. **Listening** - Listening text, 400 words (test time 20 mins)
- B. **Reading** – 1) Reading text, 400 words, 6 job descriptions, 8 job names (15mins);
- 2) Reading text, 200 words+10 items, diagram (10 mins)

RUBRICS: In L2, as clear as possible, similar to coursebook type.

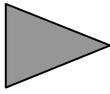
MATERIALS: Student – Test booklet//Teacher: test booklet key, tape & audio script (A)

MARKING:

- A. **Listening** – 10 items x 2 = 20 marks
- B. **Reading** – 1) 5 items x 2 marks = 10 marks; 2) 10 labels x 1 mark = 10 marks.

However, it seems more useful to re-shape it into a tabular format which we propose here. We believe that it has certain advantages. Thus, there are some slots that are constant, while the variables can be replaced according to the precise requirements of each concrete situation, with the observance of the principles previously discussed.

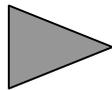
As can be seen from its structure, this modular testing framework duplicates the teaching material from the main points of view: topics, (sub) skills under focus, methodology.



Tabular Test Specification

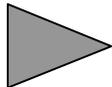
Test sect.	Objectives	Skills	Content	Formats	Rubrics	Materials	Marking	Remarks
A.								
B.								
C.								
D.								

Its main advantage would be that it can be rapidly adjusted to the specific needs of each case/group/teacher using it, while maintaining the basic common elements.



The Taught Materials Card

To the proposed tabular specification I also suggest that a so-called ‘Taught Materials Card’ should be attached by each teacher. It should have the role to increase teachers’ awareness of matters such as consistency of approach, face validity and wash back effect of the test.

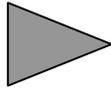


Taught Materials Card

Faculty.....
Academic year.....
Total number of hours.....

ITEM NO.	NAME OF COURSEBOOK Units / Sections taught	MATERIALS OTHER THAN COURSEBOOK	REMARKS
1			
2			
3			
4			
5			

Another advantage of this proposal is that it may provide various examples of test solutions to any teacher who is willing to contribute to the initiation and further development of a tests bank.



Being aware of risks

I am well aware that, as the situation is now, this bottom-up approach to creating a tests bank, although feasible in time (some incipient attempts have already been made in the Bucharest Polytechnic), implies a series of risks which should be anticipated, since ready-made solutions that are perfect and work smoothly are unlikely to appear. On the other hand, ready made solutions taken from books or made by outsiders are less likely to work well as far as reliable and valid evaluation is concerned.

Ultimately the teachers are the ones to estimate the context in all its details and establish their priorities realistically. They are the ones who can anticipate/prevent/diminish risks.

One such risk is that so far not all the Romanian university teachers, especially those who joined the profession after the conclusion of the PROSPER project, have received special training in assessment matters. Alderson (Alderson: 1999, 6), discussing the situation he found in Hungary, draws attention to those areas that require most training. I consider that the picture is quite similar in Romania, too. He states that “test writers – and he advocates these should be the teachers themselves – need to be thoroughly familiar with test specifications, they need to know exactly what the test has to test, and how relevant language abilities and language knowledge should be tested. They need to develop a feel for what an item they might be testing, and how to confirm their intuitions. They need to know what are the acceptable and the unacceptable features of particular item types, what test task characteristics will cause problems for students, what techniques are most suited for testing what abilities.”

Another major risk is that, even if explicit sets of criteria are given, problems in marking will still appear, especially in the case of testing subjective skills. It is quite difficult to obtain consistency and reliability in grading writing and speaking, even after some training.

There is still one major risk, namely that some teachers may not be *aware* of the existence of problems such as those briefly discussed above, and realistically speaking, this aspect should not be disregarded, as it may occur mainly due to overwhelming teaching loads, lack of resources and time constraints.

Alderson’s conclusion is that teachers “need experience in writing appropriate tests, training in this, feedback on their work, and the results of empirical analyses of trials or live testing”. (Alderson: 1999)



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