Thus a behaviourist theory of learning does not have to accompany a structural view of language. Nor is there any causal link between a functional view of language and a cognitive learning theory. Indeed, it might be argued that structuralism with its emphasis on a finite set of rules lends itself more naturally to a cognitive approach, which stresses the importance of rules. A functional description, on the other hand, lacks a systematic grammar, so might be thought to fit better with a behaviourist view of learning (Hutchinson, 1984). In practice, the implication is that both language description and learning theory should be selected in accordance with Sweet's elegant principle of 'whether or not the learning of the language will be facilitated thereby' (quoted in Corder, 1973).

Having now considered the two main theoretical bases of course design, we shall look in the next chapter at the practical aspect that is often characterised as the distinguishing feature of ESP – needs analysis.

Tasks

1 Look at the rules of a behaviourist methodology on p. 40. In what ways do they conflict with the cognitive/affective views of learning?

2 What value do you think structural pattern drills have?

3 What is the importance to language teaching of the view of language behaviour as rule-governed activity?

4 Try to do the reading strategies tasks in figure 12.
   a) What strategies did you use to get your answers?
   b) How did you feel about the experience? Did you find it satisfying or frustrating?

5 One of the tasks in figure 12 comes from a 'general' component; the other is from a Science component.
   a) Which do you think is which? Why?
   b) Do you see any significant differences between them?

6 Consider the motivation of your own students. Does it resemble integrative or instrumental motivation?

7 What practical implications does the model of learning on p. 49 have for ESP materials and methodology? Make a set of precepts for a learning-centred methodology, like those for the behaviourist methodology.

6 Needs analysis

> From each according to his abilities, to each according to his needs.
>
> (Karl Marx)

We have defined ESP as an approach to course design which starts with the question 'Why do these learners need to learn English?' But it could be argued that this should be the starting question to any course, General or ESP. All courses are based on a perceived need of some sort. Otherwise why would English find its way on to a school or college timetable: someone at some time must have decided there was a need for it. What then, in the terms of our definition, is the difference between ESP and General English?

The answer to this very reasonable question is 'in theory nothing, in practice a great deal'. It is often argued that the needs of the General English learner, for example the schoolchild, are not specifiable. This is an assumption that owes more to institutional inertia and the weight of tradition than to any reality, but it is a powerful force nevertheless. In fact, this is the weakest of all arguments, because it is always possible to specify needs, even if it is only the need to pass the exam at the end of the school year. There is always an identifiable need of some sort.

What distinguishes ESP from General English is not the *existence* of a need as such but rather an *awareness* of the need. If learners, sponsors and teachers know why the learners need English, that awareness will have an influence on what will be acceptable as reasonable content in the language course and, on the positive side, what potential can be exploited. Thus, although it might appear on the surface that the ESP course is characterised by its content (Science, Medicine, Commerce, Tourism etc.), this is, in fact, only a secondary consequence of the primary matter of being able to readily specify why the learners need English. Put briefly, it is not so much the nature of the need which distinguishes the ESP from the General course but rather the awareness of a need.

This being said, we would still maintain that any course should be based on an analysis of learner need. This is one way in which ESP procedures can have a useful effect on General English and indicates once

more the need for a common approach. The answers to the analysis will probably be different, but the questions that need to be asked are the same. Nevertheless, for the time being, the tradition persists in General English that learner needs can't be specified and as a result no attempt is usually made to discover learners' true needs. Thus if we had to state in practical terms the irreducible minimum of an ESP approach to course design, it would be needs analysis, since it is the awareness of a target situation – a definable need to communicate in English – that distinguishes the ESP learner from the learner of General English.

In chapters 4 and 5 we looked at some of the questions that should be asked about the nature of language and the teaching/learning process in general. In this chapter we shall look at the more specific matter of needs analysis. We shall be seeking answers to two questions. Firstly, what do we mean by 'needs'? Secondly, what kind of information should a needs analysis tell us?

Probably, the most thorough and widely known work on needs analysis is John Munby's *Communicative Syllabus Design* (1978). Munby presents a highly detailed set of procedures for discovering target situation needs. He calls this set of procedures the Communication Needs Processor (CNP). The CNP consists of a range of questions about key communication variables (topic, participants, medium etc.) which can be used to identify the target language needs of any group of learners.

The work marked a watershed in the development of ESP. With the development of the CNP it seemed as if ESP had come of age. The machinery for identifying the needs of any group of learners had been provided: all the course designer had to do was to operate it. However, *Communicative Syllabus Design* proved to be a watershed in quite another way. By taking the analysis of target needs to its logical conclusion, it showed the ultimate sterility of a language-centred approach to needs analysis. It illustrated, in effect, not how much could be learnt from a 'scientific' needs analysis, but rather how little. Why was this so?

The answer lies in the first of our questions about needs analysis: 'What do we mean by needs?' In the language-centred approach, the answer to this question would be 'the ability to comprehend and/or produce the linguistic features of the target situation', for example the ability to understand the passive voice. Thus what the CNP produces is a list of the linguistic features of the target situation. But there is much more to needs than this.

In the first instance, we can make a basic distinction between *target needs* (i.e. what the learner needs to do in the target situation) and *learning needs* (i.e. what the learner needs to do in order to learn). We shall consider *learning needs* later, but even within the category of *target needs* we can identify further divisions under the general heading of need.

1 What are target needs?

'Target needs' is something of an umbrella term, which in practice hides a number of important distinctions. It is more useful to look at the target situation in terms of *necessities*, *lacks* and *wants*.

a) *Necessities*

We can call 'necessities' the type of need determined by the demands of the target situation, that is, what the learner has to know in order to function effectively in the target situation. For example, a businessman or -woman might need to understand business letters, to communicate effectively at sales conferences, to get the necessary information from sales catalogues and so on. He or she will presumably also need to know the linguistic features – discoursal, functional, structural, lexical – which are commonly used in the situations identified. This information is relatively easy to gather. It is a matter of observing what situations the learner will need to function in and then analysing the constituent parts of them.

The following example of this procedure is adapted from Munby (1978), and it shows the necessities for a learner who works as a head waiter in a hotel:

Sample 'communication activities'	Related 'micro-functions'	Language forms (productive)
7. 1. 1 Attending to customers' arrival	7. 1. 1 1. intention 2. prohibit 3. direct etc.	I will bring the menu. I am afraid we are full/closed. Please follow me/Will you sit here please.
7. 1. 2 Attending to customers' order	7. 1. 2 1. suggestive 2. advise 3. describe etc.	May I suggest the .....? (etc.) May I recommend the .....? (etc.) You may find the ..... too hot/spicy.
7. 1. 3 Serving the order, etc.	7. 1. 3 1. question	..... for you, sir/madam? The .....?

Figure 15: A needs analysis using the CNP

b) *Lacks*

To identify necessities alone, however, is not enough, since the concern in ESP is with the needs of particular learners. You also need to know

what the learner knows already, so that you can then decide which of the necessities the learner lacks. One target situation necessity might be to read texts in a particular subject area. Whether or not the learners need instruction in doing this will depend on how well they can do it already. The target proficiency in other words, needs to be matched against the existing proficiency of the learners. The gap between the two can be referred to as the learner's lacks (Hutchinson, Waters and Breen 1979).

c) *Wants*

So far, we have considered target needs only in an objective sense, with the actual learners playing no active role. But the learners too, have a view as to what their needs are. As Richterich (1984 p. 29) comments:

> '...a need does not exist independent of a person. It is people who build their images of their needs on the basis of data relating to themselves and their environment.'

We have stressed above that it is an awareness of need that characterises the ESP situation. But awareness is a matter of perception, and perception may vary according to one's standpoint. Learners may well have a clear idea of the 'necessities' of the target situation: they will certainly have a view as to their 'lacks'. But it is quite possible that the learners' views will conflict with the perceptions of other interested parties: course designers, sponsors, teachers. Some examples will illustrate this:

i) Karl Jensen is a German engineer who has a frequent and important need to read texts in English. He also needs to talk to overseas colleagues occasionally, for example, at the annual planning conference. The company he works for is a multi-national company and the operating language for communication outside national boundaries is English, although the majority of workers are non-native speakers. By any quantitative analysis Karl Jensen's need is for reading, because it is a much more frequent activity for him. But he feels a far stronger need to spend his time in the English class improving his oral competence. Why? The answer lies in the way in which he identifies his own personality with the use of a foreign language. He reads in private and at his own speed: he can use a dictionary, if he wants. But when he is speaking, his pride is on the line: his English competence (or lack of it, as he sees it) is exposed for all to see and he is under pressure to participate at a speed determined by the discourse. Therefore, Karl Jensen sees his greatest need as being the improvement of his oral proficiency.

ii) Li Yu Zhen is a Chinese graduate in Chemistry, who is going to study in the United States. She needs to be able to survive socially and professionally in an English-speaking community. Fluency is, therefore, her greatest need. Li Yu Zhen, however, prefers to spend her time improving her knowledge of English grammar. Why? Her answer lies in her own estimation of priorities. In order to be accepted for her course of study she must first pass a test. The most important criterion in the test is grammatical accuracy. Li Yu Zhen, therefore, sees her priority need as being to pass the test.

iii) José Lima is a Brazilian salesman. He needs to be able to talk on the telephone to customers and to other colleagues. He also needs to read catalogues and business letters. José is an outgoing, sociable man, who gets on easily with people. His spoken English is not very accurate, but is fluent. His employer feels that José's real need is for greater accuracy in spoken conversation, because it reflects badly on the company's image to have one of its representatives speaking very incorrect English. However, José feels that his spoken English is very good, and he resents the implication that it is not. After all, he communicates very well. He sees the English classes as a criticism of his performance as a salesman. He, therefore, has little motivation to attend classes.

As these case studies show, there is no necessary relationship between necessities as perceived by sponsor or ESP teacher and what the learners want or feel they need. (It is also quite likely that the views of sponsor and teacher will similarly be at odds!) Bearing in mind the importance of learner motivation in the learning process, learner perceived wants cannot be ignored. What this means in practical terms is well illustrated by Richard Mead's (1980) account of his research into the motivation of students following ESP courses in the faculties of Medicine, Agriculture and Veterinary Science at a university in the Middle East.

The students were all given ESP courses based on texts from their subject specialisms: Medical texts for the Medical students and so on. This, it was assumed, would motivate the students because of the apparent relevance to their course of study. When Mead enquired into the interest the students had in their specialisms, however, he discovered that only the Medical students were really motivated by their subject-specific texts. The Agriculture and Veterinary students were not motivated by their subject-specific texts, because they didn't really want to study those subjects. They had wanted to be medical doctors, but there were not enough places in the medical faculty to accommodate them all. They had opted for their specialisms as very poor second bests. Agricultural and Veterinary texts, therefore, were like salt in a wound. They had a de-motivating effect, because they reminded the students of their frustrated ambitions. We might represent the necessities, lacks and wants in Mead's analysis as in figure 16.

	OBJECTIVE (i.e. as perceived by course designers)	SUBJECTIVE (i.e. as perceived by learners)
NECESSITIES	The English needed for success in Agricultural or Veterinary Studies	To reluctantly cope with a 'second-best' situation
LACKS	(Presumably) areas of English needed for Agricultural or Veterinary Studies	Means of doing Medical Studies
WANTS	To succeed in Agricultural or Veterinary Studies	To undertake Medical Studies

Figure 16: Necessities, lacks and wants

It can be seen from this analysis that objective and subjective views of needs can, and do, conflict, with a consequent de-stabilising effect on motivation. What should the teacher do in such a situation? There can be no clear-cut answers. Each situation must be judged according to the particular circumstances. What is important is that the ESP course designer or teacher is aware of such differences and takes account of them in materials and methodology. There is little point in taking an ESP approach, which is based on the principle of learner involvement, and then ignoring the learners' wishes and views. As Davies and Currie (1971) put it:

'A method which frustrates the predictions of the learner is patently bad... Much of [the] satisfaction [of] learners will come when they feel that the hurdles they themselves have predicted have been cleared.' (our brackets)

2 Gathering information about target needs

It follows from the above account that the analysis of target needs involves far more than simply identifying the linguistic features of the target situation. There are a number of ways in which information can be gathered about needs. The most frequently used are:

questionnaires;
interviews;
observation;
data collection e.g. gathering texts;
informal consultations with sponsors, learners and others.

In view of the complexity of needs which we have seen, it is desirable to use more than one of these methods. The choice will obviously depend on the time and resources available. It is also important to remember that needs analysis is not a once-for-all activity. It should be a continuing process, in which the conclusions drawn are constantly checked and re-assessed (see e.g. Drobnic, 1978).

The analysis of target situation needs is in essence a matter of asking questions about the target situation and the attitudes towards that situation of the various participants in the learning process. Detailed procedures for gathering information are beyond the scope of this book. There are a number of books and articles that may be referred to for this purpose, for example Mackay (1978), Munby (1978), Cohen and Mannion (1980), Richterich and Chancerel (1980). The simple framework below outlines the kind of information that the course designer needs to gather from an analysis of target needs.

A target situation analysis framework

Why is the language needed?
- for study;
- for work;
- for training;
- for a combination of these;
- for some other purpose, e.g. status, examination, promotion.

How will the language be used?
- medium: speaking, writing, reading etc.;
- channel: e.g. telephone, face to face;
- types of text or discourse: e.g. academic texts, lectures, informal conversations, technical manuals, catalogues.

What will the content areas be?
- subjects: e.g. medicine, biology, architecture, shipping, commerce, engineering;
- level: e.g. technician, craftsman, postgraduate, secondary school.

Who will the learner use the language with?
- native speakers or non-native;
- level of knowledge of receiver: e.g. expert, layman, student;
- relationship: e.g. colleague, teacher, customer, superior, subordinate.

Where will the language be used?
- physical setting: e.g. office, lecture theatre, hotel, workshop, library;
- human context: e.g. alone, meetings, demonstrations, on telephone;
- linguistic context: e.g. in own country, abroad.

When will the language be used?
– concurrently with the ESP course or subsequently;
– frequently, seldom, in small amounts, in large chunks.

In view of what has been said earlier in this chapter about needs and wants, it is clear that interpretations of needs can vary according to the point of view of the particular respondent. ESP, like any educational matter, is concerned with people, and as such is subject to all the vagaries and foibles of human behaviour. For example, in analysing the needs of students, it would be normal practice to ask both the lecturers and the students about their English needs. There may be a tendency on the part of the lecturers to exaggerate the need for English, since English-medium instruction is often considered to have higher status. The lecturer, in other words, has a personal investment in giving the impression that the level of English needed is high. The students, on the other hand, may give a much lower indication of the need for English, because they know (or would prefer to believe) that it is not really necessary. They might consider their interests to lie in English for their future employment, for social purposes or even in not having English at all.

It is obviously necessary to obtain answers to the questions from a variety of sources, and then to try and negotiate (delicately) a satisfactory compromise. We shall deal with the matter of what you do with the information gathered by needs analysis in Section 3.

3 Learning needs

Till now we have considered needs only in terms of target situation needs. We have been considering the question: 'What knowledge and abilities will the learners require in order to be able to perform to the required degree of competence in the target situation?'. Using our analogy of the ESP course as a journey, what we have done so far is to consider the starting point (lacks) and the destination (necessities), although we have also seen that there might be some dispute as to what that destination should be (wants). What we have not considered yet is the route. How are we going to get from our starting point to the destination? This indicates another kind of need: learning needs.

To understand what is meant by learning needs, let us look a little more closely at what happens in the analysis of target situation needs.

In looking at the target situation, the ESP course designer is asking the question: 'What does the expert communicator need to know in order to function effectively in this situation?' This information may be recorded in terms of language items, skills, strategies, subject knowledge etc.

What the analysis cannot do, however, is show *how* the expert communicator *learnt* the language items, skills and strategies that he or she uses (Smith, 1984). Analysing what people do tells you little, if anything, about how they learnt to do it. Yet, the whole ESP process is concerned not with *knowing* or *doing*, but with *learning*. It is naive to base a course design simply on the target objectives, just as it is naive to think that a journey can be planned solely in terms of the starting point and the destination. The needs, potential and constraints of the route (i.e. the learning situation) must also be taken into account, if we are going to have any useful analysis of learner needs.

An example of what this means may be seen in the matter of choosing texts.

Let us say, we are preparing materials for a group of learners who need to read texts on Systems. Most of the available texts are long and dull. Should these texts be used for ESP? We would say no. The learners' motivation in the target situation will not necessarily carry over to the ESP classroom. They may well have to read very dull texts in their work or studies, but they probably have some strong motivation to do so. This does not imply that they will accept or learn from dull texts in ESP. It may be more appropriate to look for texts that are more interesting or humorous in order to generate the motivation needed to learn English (Hutchinson and Waters, 1983). An imaginative example of a focus on the learning situation is James B. Herbolich's box kite project (1979). Herbolich describes a scheme in which Engineering students at the University of Kuwait had to build a box kite and write a manual explaining how to construct it. Herbolich gives five reasons for choosing the box kite as the object of the project:

> 'The mechanism should be (1) relatively new to the students; (2) related to a field of Engineering; (3) a device which allowed the attainment of new lexis; (4) a device which actually would operate; and (5) enjoyable to construct and test.'

It is interesting to consider how far the activity reflects target situation needs and how far the needs of the learning situation. The students would have to write manuals in the target situation and this obviously explains the choice of this particular mode of expression. The students were studying Engineering, hence reason (2) above. But this is the limit of the influence of the target situation. All the other reasons given derive from the needs of the learning situation – the need for a task that is enjoyable, fulfilling, manageable, generative etc. The project, in effect, is guided in terms of its general orientation by the target situation, but its specific content is a response to learning needs.

Herbolich's project reminds us once more that ESP learners are people. They may be learning about machines, but they are not the word-crunching machines which too many approaches to ESP seem to imply.

In the target situation they may need, for example, to read long, dull or complex texts, but their motivation to do so may be high because:
- they like the subject in general;
- examinations are looming;
- job/promotion prospects may be involved;
- they may be going on to do very interesting experiments or practical work based on the texts;
- they may like and/or respect the subject teacher or boss;
- they may be very good at their subject, but poor at English.

For all manner of possible reasons learners may be well motivated in the subject lesson or in their work, but totally turned off by encountering the same material in an ESP classroom. The target situation, in other words, is not a reliable indicator of what is needed or useful in the ESP learning situation. The target situation analysis can determine the destination; it can also act as a compass on the journey to give general direction, but we must choose our route according to the vehicles and guides available (i.e. the conditions of the learning situation), the existing roads within the learner's mind (i.e. their knowledge, skills and strategies) and the learners' motivation for travelling.

4 Analysing learning needs

To analyse learning needs, we can use a similar checklist to that used for target situation analysis:

A framework for analysing learning needs

Why are the learners taking the course?
- compulsory or optional;
- apparent need or not;
- Are status, money, promotion involved?
- What do learners think they will achieve?
- What is their attitude towards the ESP course? Do they want to improve their English or do they resent the time they have to spend on it?

How do the learners learn?
- What is their learning background?
- What is their concept of teaching and learning?
- What methodology will appeal to them?
- What sort of techniques are likely to bore/alienate them?

What resources are available?
- number and professional competence of teachers;
- attitude of teachers to ESP;
- teachers' knowledge of and attitude to the subject content;
- materials;
- aids;
- opportunities for out-of-class activities.

Who are the learners?
- age/sex/nationality;
- What do they know already about English?
- What subject knowledge do they have?
- What are their interests?
- What is their socio-cultural background?
- What teaching styles are they used to?
- What is their attitude to English or to the cultures of the English-speaking world?

Where will the ESP course take place?
- are the surroundings pleasant, dull, noisy, cold etc?

When will the ESP course take place?
- time of day;
- every day/once a week;
- full-time/part-time;
- concurrent with need or pre-need.

Conclusion

In this chapter we have looked at the most characteristic feature of ESP course design – needs analysis. We have tried to show that it is a complex process, involving much more than simply looking at what the learners will have to do in the target situation. Most of all, we have tried to stress that both target situation needs and learning needs must be taken into account. Analysis of target situation needs is concerned with language *use*. But language *use* is only part of the story. We also need to know about language *learning*. Analysis of the target situation can tell us what people *do* with language. What we also need to know is how people *learn* to do what they do with language. We need, in other words, a learning-centred approach to needs analysis.

Tasks

1 In what ways will an awareness of need affect an ESP course?

2 How might you analyse the needs of secondary school learners? What results do you think you would get?

3 What would you do faced with Mead's situation?

4 Make an analysis of your own learners' needs using the *Framework for analysing target needs.*

5 Analyse your own teaching/learning situation using the *Framework for analysing learning needs.*

6 Study your own ESP textbook or materials. Try to reconstruct the results of the needs analysis it is based on.

7 Approaches to course design

They must have the defects of their qualities.

(translated from Honoré de Balzac: *Le Lys dans la Vallée*)

Course design is the process by which the raw data about a learning need is interpreted in order to produce an integrated series of teaching-learning experiences, whose ultimate aim is to lead the learners to a particular state of knowledge. In practical terms this entails the use of the theoretical and empirical information available to produce a syllabus, to select, adapt or write materials in accordance with the syllabus, to develop a methodology for teaching those materials and to establish evaluation procedures by which progress towards the specified goals will be measured.

So let us assume we have completed our needs analysis and reviewed the theoretical models of learning and language available. We now have to face that crushing question: What do we do with the information we have gathered? Asking questions about learner needs will not of itself design a course. The data must be interpreted. We have got a lot of answers. But when we come to designing our course, we will find yet another series of questions. The data from our needs analysis can help to answer these questions. But care is needed: there is no necessary one-to-one transfer from needs analysis to course design. We have seen already that answers from one area (what learners need) and another (what learners want) may conflict. We must remember that there are external constraints (classroom facilities/time) that will restrict what is possible. There are also our own theoretical views and (not to be discounted) experience of the classroom to take into account.

There are probably as many different approaches to ESP course design as there are course designers. We can, however, identify three main types: language-centred, skills-centred and learning-centred.

1 Language-centred course design

This is the simplest kind of course design process and is probably the one most familiar to English teachers. It is particularly prevalent in ESP.

The language-centred course design process aims to draw as direct