

How to Incorporate Strategy Training into the Foreign Language Curriculum

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The conclusion of my research to identify the learning strategies used by mining engineering students in an ESP context (1992) initiated a second phase of study—the incorporation of strategy training into the language curriculum. This strategy training component is designed to enable students to become more efficient and independent learners. Far from being an addition to classroom methodology and task completion, it should be seen as part of ordinary learning procedures. The teacher encourages development of strategies and «metacognition»—two essential tools with which learner autonomy is developed—while the student takes on more control and responsibility for his own learning. This paper suggests how a strategic component can be integrated into the syllabus of an English course and presents a series of strategies that could be developed in the process of completing the tasks and activities contained in the lessons.

Introduction

During 1991/92, I conducted some research on the learning strategies employed with students at the School of Mining Engineering (Technical University of Madrid), which identified a wide range of tactics or cognitive abilities¹. The focus was on the learners' active involvement in the learning tasks as well as the attention paid to their own learning process.

This first phase of the research illustrated that the majority of students on the three English courses already possessed the main characteristics attributed to the «good language learner» (G.L.L.).

Instruments such as a questionnaire and an interview were used to identify strategies in order to create the *metacognitive awareness* necessary to begin the training process. This gave students the opportunity to reflect on strategies and skills mainly employed in learning English.

A second phase of the investigation was prompted by these findings centering on training students in the use of strategies which enhance communicative competence in the L2 and at the same time

¹ The term *strategy* has been referred to in the domain of second language learning as «techniques», «tactics», «potentially conscious plans», «consciously employed operations», «cognitive abilities»... These different designations respond to the elusive nature of this concept (see Wenden & Rubin 1987:7).

encouraging a higher level of self-direction in language learning. The goal is to create conditions for the development and control of their personal learning process. Far from interfering with the current teaching, this strategic component is perfectly compatible with traditional classroom instruction and does not need to introduce major changes to the curriculum.

After showing students that they were already employing the tactics relevant to the «good language learner», I made them realise their strong and weak points so that they could feel responsible for their own progress. All this acted as a stimulus and helped their performance, since this appreciation is essential for the success of a strategy training programme as Wenden (1987:588) states:

In effect, to make a repertoire of strategies applicable to a specific context, learners apparently need to be convinced of its significance and be taught to evaluate its use.

1. Rationale

It is a well-known fact that different learners use different strategies when learning a second language (see Larsen-Freeman & Long 1991), and also that being aware of their preferred strategies and other ways of achieving their tasks makes them more in control of their own learning process. As a result, there has been a growing interest within the field of foreign language teaching in integrating the teaching of content — in this case linguistic — with the training of skills and strategies (see Wenden 1987, Nunan 1988, Ellis and Sinclair 1989, Weaver and Cohen 1994). Nevertheless, there remains a fear within those who wish to incorporate this component into established teaching that this will lead to a drastic change for teachers as well as textbook writers and publishers. There have in fact been few experiences developed recently that satisfy this integration into

the context of traditional teaching². Therefore, my intention is to suggest an approach which enriches the long-accepted methods of instruction with this new perspective.

Before continuing with practical suggestions of how to train the students, it is necessary to ask ourselves why it is important and useful to do so. A brief revision of the literature on this theme (already covered in Kindelán 1992) illustrates that the concept of strategies has been considered, from the start, integral to the idea of the «good language learner» (G.L.L) (see Rubin 1975; Stern 1976; Naiman, Frohlich and Todesco 1978 to mention but a few). The most outstanding features possessed by this type of learners are:

- a) Their predisposition to involve themselves personally in language learning and in addressing its affective demands.
- b) The organization of a new reference system to which they progressively adapt themselves.
- c) The monitoring of their second language performance.

On the whole, they should develop more self-awareness of their procedures to learn the language and therefore improve their output.

However, for Wenden, no such thing as a good language learner exists, only successful or expert or intelligent students who *have learned how to learn*: «They have acquired the learning strategies, the knowledge about learning, and the attitudes that enable them to use these skills and knowledge confidently, flexibly, appropriately and independently of a teacher» (1991:15). The truth is that the concept of the G.L.L. is an archetype or model to be copied, but a classroom consists of good, average and «less capable» learners. The main problem is not that language learners do not employ the strategies but that they use them inappropriately, as has been demonstra-

² The «Learner Autonomy Project Inventory» (LAPI) comprises a series of project descriptions in this specific field of research and/or classroom implementation that are being accomplished internationally (For more information, contact Anita Wenden at the following address: wenden@ycvax.york.cuny.edu). See also other projects outlined by Wenden (1991:136-62) in «Settings for promoting Learner Autonomy».

ted by Vann & Abraham (1990). They provide counterevidence for the claim that unsuccessful learners are inactive. Their study shows that two «poor learners» of English used strategies actively, though sometimes unsuitably. Chamot & Kupper (1989) also contend that many language learners are low achievers simply because they rely on uncommon or inappropriate use of a limited repertoire of strategies such as rote memorization, translation, repetition, and deduction. These are oriented to the successful completion of a test but they do not involve long-term internalization of language.

Teaching strategies not only improves a language learner's competence and performance but also, and perhaps more importantly, it develops a more worthwhile educational experience. In *Toward a Theory of Instruction*, Bruner states the ultimate goal of instruction:

Instruction is a provisional state that has as its object to make the learner or problem solver self-sufficient... Otherwise the result of instruction is to create a form of mastery that is contingent upon the perpetual presence of a teacher... (1966:53).

As mentioned previously, one way to avoid this dependence on the teacher is to equip the students with the tools necessary for this self-sufficiency. To be self-sufficient, learners must know how to learn. Strategy training helps them explore consciously their own mental operations and procedures, discover and master specific tactics that favour their learning, and in the long run gain more self-reliance.

2. Objectives

The objectives of this strategic component are as follows:

1) To help students consider what it means to learn a second language and make them discover the strategies that suit them best so that they become more efficient learners.

2) To prepare them to accept responsibility for their own learning and therefore to develop a self-sufficiency within the process.

3) To foster an awareness of the importance of self-direction and evaluation by encouraging reflection and supervision of their behaviour and progress in the L2.

4) To present or to promote the use of the most appropriate strategies to the given tasks.

In summary, the proposal is to facilitate the training of students in language learning strategies within the context of an ordinary classroom to enhance their educational experience as a whole. This aim then has to be incorporated into a workable methodology.

3. Methodology

The approach that we need to implement into this training programme is based on the idea of training ESP students in learning strategies, provided that the methodology used highlights techniques that promote learner autonomy within classroom instruction.

For example, we know that a good language learner continually reviews his accomplishments in the L2. However motivated our students may be, they are more familiar with a teacher-centred methodology that has been until recently common in language instruction. Therefore, their involvement in the learning process can only be achieved if they become conscious of their individual learning needs as well as more responsible for their own language acquisition. The results of my studies illustrate their capacity to control and direct their output, at least within a classroom context. This self-direction involves the identification of errors, the checking of conclusions, the incorporation of changes arising from the new linguistic system, the revision of their work with a native speaker, and in general, following their progress in the L2.

In the initial stages, most of these operations come hand in hand with the adopted method. This is the case with students who have studied French and have not developed an internal supervisory sys-

tem in English (e.g. «I do not know if I'm doing well or badly» says one of the students interviewed about his written work. See Kindelán 1992). Later, when they have achieved a higher competence in the language they begin to show an instinctive mechanism that explains the student's disposition to control his production in the L2. This intuitive system evolves from both the exposure to the foreign language and practice of acquired knowledge in a classroom setting (see Byalystok 1981:26). Some of the participants interviewed in the first part of this investigation talked about the use of this mechanism: «You always try to correct yourself but it is better to throw yourself into talking and make mistakes: that's how you improve»; and also «It's not only a question of knowing that you have used the verb or the subject badly; the problem is that is all you know». There clearly exists an awareness of the self-evaluation of their learning process.

Although mining engineering students have few opportunities to test their language competence during the English course, it is necessary to imbue them from the beginning with the feeling of self-direction in their language learning. As this attitude does not necessarily arise in a natural way, the teacher has to do his best to instil and foster this consciousness. Specific techniques to meet this objective are:

- 1) Have students occasionally pause to reflect and evaluate their own performance, either when they are doing a task or when it is completed.
- 2) Promote self-correction and peer correction, which are more efficient if accompanied by an explanation of the rules governing the new linguistic system.
- 3) Let the students assess their work or get other classmates to do so. Again, this is confirmed by a testimony from one participant in the interview mentioned above: «There is no better way of becoming aware of your own errors than correcting them by yourself or with a partner». And another referring back to an exam revision in class reports: «One never forgets the errors made in an examination». Going back to one's work is

a very useful way of processing and assimilating the right structures and code of the L2.

4) Provide the students with several strategies that can help this assessment process. For example, in a conversation, ask the speaker — if possible — to correct mistakes and errors as he is talking so that the right forms of the L2 are registered in their memory immediately; and also check if recently learnt vocabulary and expressions in the foreign language can be put into practice in different communicative situations.

5) Suggest that the students make their own learning plan. This is one of the most natural resources available, but it is often ignored by students. This strategy allows them to take more responsibility in their learning of the language. Carver (1984:128-30) proposes a scheme consisting of five components: a formulation of objectives; a time scale; a list of materials to be used; a list of strategies to develop; and a series of techniques to supervise and assess their progress.

Some of these procedures will be more relevant in some situations rather than others. For instance, listening and speaking activities demand the use of certain techniques to promote the flow of communication, like having someone assessed your performance in a conversation (nº4), whereas writing activities give the student more time to think about his output, thus adopting evaluative and revising substrategies (nº 2 and 3).

These and other techniques should be present in the classroom since there are innumerable occasions in the teacher-learner interaction where the former can urge the latter to concentrate on *learning how to learn*, not on the actual results of activities. Presenting a new strategy or combination of strategies which can be applied to a specific task can help learners realise how efficient these tactics are in understanding and/or producing the L2. In other words, become more aware of their mental processes and take on more responsibility for their language learning.

4. Programme framework

The strategy component will be integrated in one of the subjects of the new academic curriculum that is now in process at the School of Mining Engineering. With the exception of «Scientific and Technical English» which is the only compulsory course taught in the third year of the degree, the remaining English courses are defined as optional subjects of instrumental material. Students have the choice of completing a basic level of the language in the first year (Inglés Básico), and then two other selections in the second year (Inglés Técnico I and II) in anticipation for the intermediate-advanced level required for the third year (Inglés Científico Técnico). Therefore, they have the opportunity during their studies to prepare for the challenge of a very specific English course; otherwise, if they do not follow the courses in years I and II, they must obtain this level by their own means. At the same time, given that some of the components of the English course in the new curriculum are optional, there are students who choose a foreign language as an easy alternative to other subjects but others who are motivated to learn a second language.

Attendance of the English courses usually is quite uneven, depending on the season of the year: there are lower numbers before the exam period (two weeks every term), and is also determined by the timetable clashes caused by re-taking subjects from previous years. On the other hand, the different levels of competence are also variable, starting with false beginners, through an intermediate stage, up to a small proportion of advanced students, some of who have passed courses at the Official School of Languages. Despite this inequality, the academic regulations require that the knowledge of the student is evaluated in a final examination (or in end-of-term exams), which leaves little room for the learner to assume a more self-sufficient role. His main preoccupation is to pass the exam.

To be able to work a strategy training component in a syllabus then, it is necessary to first remove the «pressure» factor which goes

with examinations in the student's mind. He needs to see exams as just one more part of the course, and not as the most important element of his evaluation. Secondly, one needs to decide if his training is going to be implicit or explicit i.e. whether or not to explain to the class what the process consists of and how they are to achieve it. Some studies on the subject clearly show that informing students of the process makes them more sensitive to:

- a) The concept of what they have to achieve in the course, and not just a vague notion of passing.
- b) The great importance of their role in learning.
- c) The worth of self-assessment and direction.

Thirdly, the aim of this training is not to teach the strategies for themselves but to enhance the consciousness of students of their potential as language learners. With the strategies embedded within a realistic context, there is a balance of a traditional classroom setting with a strategy training scheme. In fact, in cases where this has been tried (see Victori 1994 and Halbach 1997), it has revealed the great utility and efficiency of this programme.

So if we are going to leave the student to experiment with the language, we have to respect his ability not only to produce the L2 accurately but also to make the effort to become autonomous in his language learning³.

Finally, strategy training must not forget that each student is an individual with his own preferences and style of learning. Therefore, he can benefit from knowing and applying other learning modes when performing a task. However, a specific strategy should never be imposed as defined by Ellis & Sinclair (1989:4):

³ It is very interesting to mention Anna Halbach's study of students of English Philology at the University of Alcalá de Henares. She looks into the use of a «diary» as a means of showing the progression and meeting of learning objectives in the English language.

The term «training» may seem to imply that learners are indeed taught specific behaviours rather than being encouraged to discover what works best for them as individuals. [...] we do not intend it (the term strategy training) to be understood as in any sense referring to a prescriptive approach.

The teacher must not succumb to the temptation of imposing a pre-set programme of strategies. The important issue is animating students to discover what works best for them as individuals and above all as language learners.

5. Definition of a strategic component

As «Scientific and Technical English» is the only compulsory course of the Mining Engineering degree, the English Department has recently devised the syllabus which will be taught in 60 hours (6 credits). It covers a range of characteristic topics dealing with the different areas of the degree: energy, metallurgy, geology, mining and general engineering. It consists of twelve units with the following objectives:

— In-depth study of the main structures of English grammar. Students must have a basic knowledge of the language, usually acquired at secondary school.

— Assimilation of technical vocabulary peculiar to the abovementioned areas.

— Analysis of scientific and technical texts mastering appropriate skimming and scanning reading skills, distinguishing relevant from non-relevant information, designing graphs and diagrams, and using connectives.

— Composition of texts in English adopting a logical and suitable structure and complying with the distinct conventions of each genre: abstract, report, research paper...

— Reinforcement of listening and speaking skills by way of communicative practice in the classroom and the completion of exercises/activities in the language laboratory.

Strategy training will be incorporated in the teaching programme of this course. But first the strategic component has to be defined. For this purpose, I have embraced the most comprehensive classification of learning strategies by Rebecca Oxford (1990), without leaving aside other equally relevant categorizations, those of Ellis & Sinclair (1989) as well as O'Malley & Chamot (1990). Although I do not intend to select determined metacognitive, cognitive, compensation, socio-affective... strategies for our students to practise, it is most convenient to determine from the teacher's point of view, which strategies should be emphasized in every task or activity planned throughout the course. The starting point should be that strategies are combined and developed within the contents of the lessons to build meaningful didactic units. In fact, I have already taken to the classroom one of the lessons of this syllabus entitled «Minerals and Rocks» (Kindelán 1997). It presents a series of tasks which lead learners to explore their own use of techniques for language learning within their capability. The teacher's task is to bring to light the strategies that converge on the learning process, either through deliberate emphasis of their use, or by letting learners report their own repertoire of tactics employed in the completion of those activities.

Among the various repertoires offered by the abovementioned authors, I have picked out the following strategies as the most appropriate to students' learning needs and also the objectives of the course:

- (a) *Prediction*: guessing content by means of contextual clues or with the help of background knowledge.
- (b) *Recombination*: using already learned sentences or expressions combining them in a new way to produce the L2.
- (c) *Grouping*: classifying or reclassifying language material based on common attributes to make it easier to remember.
- (d) *Deduction*: consciously applying rules and grammatical knowledge to produce or understand the second language.

(e) *Hypothesis testing*: comparing/checking own speculative statements and deductions with a model.

(f) *Translation*: using the first language as a base for understanding and/or producing the second language.

(g) *Transfer*: applying linguistic knowledge from the learner's own language to the new language, linguistic knowledge from one aspect of the new language to another aspect of the new language, or conceptual knowledge from one field to another.

(h) *Inferencing*: using available information to guess meanings of new items, predict outcomes, fill in missing information and understand grammar rules.

(i) *Note-taking*: depending on the purpose, note-taking can be in the target language, thus involving writing practice or a mixture of the target language and the mother tongue, with known vocabulary words written in the L2 and the rest in the L1. Here it is aimed at underlining topic sentences, listening for content words, filling in charts/tables...

(j) *Contextualization*: placing new words or expressions into a meaningful context, such as spoken or written sentences, as a way of remembering them.

(k) *Resourcing*: using resources to find out the meaning of what is heard or read in the new language, or to produce messages in the L2. It also entails the use of target language reference materials (i.e. dictionaries, grammar books, word lists...) for this aim.

After identifying learning strategies, the procedure to be followed is to integrate them at various moments during the tasks proposed to the class. Hence activities will have to be analysed to see what strategies the student will demand. Apart from the unconscious strategies used by the learner, the teacher also suggests others which can be discussed openly and later evaluated. In this way, the strategies are called for by the activities and not by a pre-set framework.

The steps to follow at the moment of introducing this strategic component in the classroom have also been outlined in different ways by several experts in the field (see «An Action Plan for Strategies», in Wenden 1991:97-117). I tend toward the following procedure:

1) The teacher defines the strategy with which to train his students.

2) He decides which communicative skill or linguistic item the strategy is most relevant to and what type of activity is the most appropriate for this purpose.

3) He selects the didactic material necessary for the training of that strategy. This can be found in the textbook or sometimes has to be adapted or created from extra-material.

Naturally, he has planned in advance what the object of the activity is, what sort of L2 production is expected and if the strategy should be made explicit at the beginning or end of the activity.

For example, in learning vocabulary, there are «memory strategies» that students can be made aware of in various ways. One common procedure is to encourage them to experiment with their own strategies and let them acquire others from their peers as follows (Kindelán 1997:130):

1) The teacher writes a list of unknown vocabulary with its definition and/or translation on the blackboard and tell students they have to learn it since they will be tested later on.

2) Students are given 5-10 minutes to learn the vocabulary items. In the meantime, the teacher *observes* the learners' behaviour. This is important so that s/he can later ask more focused questions.

3) The teacher erases vocabulary from the blackboard, and tests students.

4) Before checking the answers, the teacher asks the students to make a note of how they learnt the words (suggest things like «writing them down several times», «repeating them to oneself», «grouping them according to their sound/meaning/form/grammatical category»).

5) Answers to the test are checked. Students are then asked to tell each other how they learnt the words. A list of possible techniques is written up on the blackboard. Here the teacher can use the information gained from the observation of students' behaviour.

6) Teacher and students discuss the activity, and whether it was useful. At this point, the teacher can reveal and name the strategies that have

been utilised in the process and present new ones. It is also important to emphasize that different techniques work for different people.

7) As a follow-up activity, a new list of vocabulary is given and students are invited to experiment with various strategies for learning the words. Then they assess how well this new method worked for them.

These guidelines have been developed to promote awareness on the students' part and to make strategies explicit. They could be reproduced with a different perspective in each category of strategy. The plan allows for verbal reporting from students about their mental processes, feedback on the part of the teacher, and discussion with students about the learning process, and above all it reveals how strategy training may be implemented into normal teaching without implying any major changes to ordinary classroom procedures. Raising students' awareness about language learning and the role they have to play in it can be favoured by very simple tactics, namely, having them assessed their own performance, posing a series of introspective or retrospective questions when completing tasks, and explaining the purpose of doing certain exercises with them.

The most important thing in this whole process, however, is to help learners to identify their problems and weaknesses in language learning. This enables them not only to recognise the strategies they use but also whether or not they are adequate or other strategies would facilitate a greater success. The ultimate goal is to come as close as possible to the prototype of the «good language learner» (G.L.L.). As a rule, we all attempt to become better language learners by utilising and incorporating more and more strategies into our repertoire in order to be really competent and efficient in the L2. Our students need to know *this*; that's why a strategic component gives them an idea about *what* they are doing, *how* they are doing it, and *the way* to improve it.

6. Strategies incorporated into the lessons

After defining the strategic component, I will present an inventory of strategies suited to several units of the «Scientific and Technical English» syllabus. Since it is only cognitive strategies which directly relate to the specific tasks, they will be the ones included in the inventory although in the classroom the other existing categories (metacognitive, socio-affective, memory, etc.) will be interwoven with them. However students are trained in cognitive strategies, if we ask them to monitor and assess their performance continuously, we create a sense of «metacognition» in them, that is, what might be called *learning awareness* (Wenden 1986). Therefore, they should be asked to note down after each activity whether it has been interesting, if there has been some planning on their part, how they have performed, which problems and difficulties they have detected, so suggesting a possible follow-up activity to help themselves in this sense. This is precisely the notion of the «learner diary» so frequently used as an instrument of insight in language learning. I shall return to this point later.

The sequence of strategies incorporated in the lessons correlate with the tasks designed in the units, all of which follow one crucial principle of our methodology: the integration of the four language skills. Due to limited space, we have only detailed those corresponding to the first six lessons of the course⁴. The inventory covers the learning strategies selected as well as the skills in which the students could be trained:

⁴ For reasons of space, only one unit (unit 3) of the syllabus has been enclosed at the end to have an overview of the contents of a lesson.

INGLÉS CIENTÍFICO TÉCNICO

UNITS	STRATEGIES	SKILLS
Unit 1	<p>Contextualization: placing information within a meaningful context.</p> <p>Inferencing: using knowledge about world, culture, communication process to infer meaning.</p> <p>Transfer: using previously acquired linguistic and conceptual knowledge to complete a new learning task.</p> <p>Hypothesis testing: comparing/ checking own speculative statements and deductions with a model.</p> <p>Prediction of content from a picture.</p>	<p>Matching visual and written information.</p> <p>Listening.</p> <p>Matching visual and written information.</p> <p>Speaking and writing.</p> <p>Jigsaw reading.</p>
Unit 2	<p>Inferencing: recognizing true/ false data against charts/ diagrams.</p> <ul style="list-style-type: none"> • filling in missing information. • deducing the meaning of unknown words. <p>Prediction of content from title.</p> <p>Note taking:</p> <ul style="list-style-type: none"> • listening to content words. • finding headings for paragraphs. <p>Grouping: classifying information according to a certain criterion.</p> <p>Resourcing: text structure: using text schemata to help with production.</p> <p>Contextualization: placing words in a meaningful language sequence.</p>	<p>Speaking.</p> <p>Writing.</p> <p>Skimming.</p> <p>Listening.</p> <p>Reading.</p> <p>Writing.</p> <p>Writing.</p> <p>Vocabulary.</p>
Unit 3	<p>Prediction of content from a picture.</p> <p>Inferencing: using available information to predict outcomes.</p> <p>Note-taking: listening for specific information and filling in charts/ tables.</p> <p>Translation: using mother tongue to understand difficult words and expressions.</p> <p>Resourcing: using the dictionary for grammatical information.</p>	<p>Speaking and scanning.</p> <p>Intensive reading and writing.</p> <p>Listening.</p> <p>Vocabulary.</p>

Unit 4	<p>Resourcing:</p> <ul style="list-style-type: none"> • text structure: using contrast/ comparison to validate/ invalidate hypotheses. • text grammar: using text schemata to help with production/ understanding of texts. <p>Note taking:</p> <ul style="list-style-type: none"> • listening for detail. • listening for content words. • matching headings with paragraphs. <p>Translation: using mother tongue as a base for producing the L₂.</p> <p>Advance preparation: planning for and rehearsing linguistic components in order to discuss a particular issue.</p>	<p>Skimming and scanning.</p> <p>Reading and writing.</p> <p>Listening.</p> <p>Group discussion.</p> <p>Speaking.</p>
Unit 5	<p>Inferencing: using knowledge about world, culture, communication process to infer meaning.</p> <p>Resourcing: using text schemata to help with production and understanding of texts.</p> <p>Transfer: applying linguistic and/ or conceptual knowledge to facilitate a new language learning task.</p> <p>Note taking: listening for content words and key ideas.</p> <p>Recombination: using already learned sentences or expressions combining them in a new way to produce the L₂.</p>	<p>Speaking (brainstorming).</p> <p>Reading.</p> <p>Speaking and writing.</p> <p>Listening.</p> <p>Writing.</p>
Unit 6	<p>Resourcing: using text schemata to help with production/ understanding of texts.</p> <p>Note taking:</p> <ul style="list-style-type: none"> • filling in charts/tables. • summarizing the salient points from a lecture. <p>Deduction: text structure: applying rules and grammatical knowledge to produce the L₂.</p> <p>Transfer: using previously acquired linguistic and conceptual knowledge to complete a new task.</p> <p>Resourcing: using the dictionary to check meanings of words and to edit writing.</p>	<p>Speaking and writing.</p> <p>Listening.</p> <p>Reading (rearranging jumbled texts).</p> <p>Writing (narrative form).</p> <p>Writing.</p>

Table 1: Inventory of strategies

As can be seen, the use of cognitive strategies is required when doing any task, but without excluding the possibility of students employing whatever comes to mind in the process of completion. The fact is that the textbooks we have been using do not mention the type of strategy in which the student may be trained for a given activity. This deficiency could be amended by introducing various stra-

tegies to be used and experimented with (e.g. unit 4: *metacognitive strategy→*Advance Preparation*). As a rule, we may resort to supplementary material for this purpose.

Although students should begin with a *declarative* knowledge of these skills, they need to use and practise them until they are internalised to the extent of being *procedural* knowledge. It is not enough to discuss and utilise the strategies only once or twice; they need to be used and revised periodically. Learners need to have the opportunity to assess and direct their progress with the language, and at the same time reflect on their own learning processes.

Before embarking on this training enterprise, it is most advisable «to sensitise» students to the concept of what autonomous learning means. This implies discussing with them all the factors influencing language learning⁵, including what type of learners they are, how they approach a task, how they evaluate their competence, and finally identify the resources they have to improve their command of the L2. During the course, this initial awareness is sustained by promoting «metacognitive strategies» such as planning, advance preparation of a learning task, self-monitoring and self-evaluation of their production of the L2. New applied technology provides a further resource in the form of specially devised computer programmes aimed at eliciting concrete tasks from students. For example, as far as writing is concerned, they can analyse and later produce documents such as abstracts, reports, correspondence or work on written exercises. A team from the English Department at the Technical University of Madrid (CEDAC)⁶ has recently created a document-generating programme which includes theory, practice and models of some common types of texts: CV, cover letter, fax, memorandum, report, abstract, business letter and oral presentation. The user can compose

⁵ An effective way to achieve this «sensitisation» is to get students to fill in a questionnaire such as Ellis & Sinclair's on learning styles (1989:6. Learner's book).

⁶ Colectivo de Experimentación, Desarrollo y Aplicación Comercial del Departamento de Lingüística Aplicada a la Ciencia y Tecnología de la Universidad Politécnica de Madrid.

these different documents himself. The programme works as a tutor of the learning and practical application of writing skills in an academic and professional environment. Technology allows learners to study by themselves gendering further self-evaluation.

In a final stage, consciousness of this process is attained through asking students to record every activity they think interesting, inviting them to spot their shortcomings, limitations and problems in the L2 output, and finally urging them to plan follow-up activities which help them improve their performance. This information can be supplemented with the answers obtained from a self-assessment questionnaire students complete at the beginning and end of the course.

All this will have to be looked at in the wider context of the syllabus and its objectives so as to prove to what extent the latter have been reached, and therefore suggest modifications and enhancements.

7. Evaluation of the programme with a strategic component

As defined by Brown's systematic approach (1989) at the time of designing and teaching a language curriculum, the evaluation is considered an integral part of the programme in such a way that one is continually feeding the other. The three stages within this evolution are: an evaluation prior to the implementation of the programme, another during its development and another after its execution.

In the first stage, evaluation is fed by the «needs analysis» carried out at the beginning of the course. Its aim is to identify the learning needs of the students as well as their necessities based on their knowledge of the language and use of strategies. This «needs analysis» in itself determines the aims of the course and the selection of its content.

Throughout the course, evaluation must concentrate on the use of instruments that aid the teacher to understand the efficiency of the methods employed in the training of strategies. In this way, he can

negotiate the existing scheme with the students and make the necessary modifications. This dialogue can be an «informal conversation» with the class, after each unit they can be asked which activities they think were the most useful and why. Students can also be given a «questionnaire» to express their opinions and to find out if the strategies practised in the activities helped both their motivation and competence in the L2. Finally, a useful tool which has been employed successfully in the classroom is the «diary» — previously mentioned — where the student writes about his own mental approach to language learning. This is checked periodically by the teacher not only to understand in greater detail the problems of individual students but also their strengths.

It is difficult to be objective in the measuring of the success of the strategic component, which is the final phase of the evaluation process. Nevertheless, it is possible to judge to a certain extent with a test. For instance, a reading passage followed by comprehension exercises and related activities demands the use of strategies to process information from text: (1) *organizational* strategies, i.e. noticing how a text is organized and how the ideas contained are related to one another (e.g. recognizing different types of paragraph structures, using headings and subheadings as organizational clues...); (2) *imagery* strategies, i.e. forming mental pictures to encode the meaning of words and ideas (e.g. visualizing objects, events and places while reading); (3) *contextual* strategies, i.e. using context clues to define unfamiliar words and make inferences from the text (e.g. inferring topic sentences, using signal words as clues in categorizing information...); (4) *self-evaluation*, i.e. approaching reading comprehension tasks in a systematic way (e.g. carefully checking to make sure one has understood the question to which one is responding; carefully checking to ensure one has systematically analysed all the multiple choice response options offered before making a selection...). These active information-processing strategies play an important role in successful reading comprehension: good readers — as opposed to

poor ones — tend to employ a variety of strategies which transform the information contained in texts, making it easier to understand and remember (see Weinstein & Underwood 1985:243). This task then enables the teacher to see whether the student was able or unable to analyse and process the data correctly. Of course, one must accept that within a test situation, there has to be a margin for error taking into account students» nerves, stress, and other outside factors.

Students can also be asked to enclose the draft written work which displays, to a certain degree, the amount of planning, organization and monitoring that has gone into the completion of the task.

Again, diaries are a valuable source of information on the use of strategies. Not only do they show to what extent learners have the ability to assess their performance in the L2, but also their awareness of the factors affecting it. Both the test results and learner diaries have to be analysed in terms of strategy awareness and use.

Although the evaluation process is necessary and allows improvements in the curriculum, it has to be acknowledged that it might be difficult to carry out this type of programme and then appraise it. Some objections, which will be discussed below, have been brought up to question its efficacy. However, despite apparent obstacles, it has long since been demonstrated by many field practitioners (Willing, Wenden, Oxford, Ellis & Sinclair, Cohen and many others) that it is possible and advisable to incorporate this training into teaching methods.

8. Programme expectations

Every curriculum innovation, however minor, is seen with suspicion and always subjected to a certain amount of criticism, the most prevalent of which is the time that has to be invested in the so-called «supplementary activities» to implement this type of programme. The terminology itself highlights how the component is judged as not being a primary language learning activity. It is alleged that

the learner is obliged to miss tuition of linguistic contents — considered essential in a language course — at the expense of paying attention to their own mental processes. Yet it can be argued that although the planned syllabus is not wholly covered, the students will benefit from a good training in the use of strategies. Further to studying significant grammar points and vocabulary in the L2, the student discovers his approach to language learning and the tactics that work best to meet this end.

Another criticism is that the programming of such a component clearly needs specifically designed materials. However, there are several existing publications with tasks adaptable for various levels in order to practice strategies within the course objectives (see Willing 1989, Ellis & Sinclair 1989, and *The Learner Independence Worksheets*, edited by IATEFL⁷). Other textbooks already in the market incorporate strategy training into class activities (Hajer, Messtringa, Park and Oxford 1996). They include several activities which implicitly practise diverse strategies and give explanations of their applications and advantages in learning the target language.

This focusing on the lack of materials forgets that strategy training can make use of existing text books simply by altering our approach to it and facilitating the student's reflection on and acquaintance with strategies that most favour his learning.

Furthermore, introduction of a strategic training component into the syllabus means bringing to the teacher's attention the possibilities of using learning strategies as a basic element of their instruction. This presupposes an awareness on their part of the necessity to provide the learner with appropriate practice, encouragement, promotion and training that optimizes the learning process. In fact, such

⁷ The International Association of Teachers of English as a Foreign Language (IATEFL) is composed by several Special Interest Groups, one of which is «The Learner Independence Interest Group». This group publishes its own journal and one of the last issues includes a series of worksheets based on the fostering of the learner's autonomy, which can be employed in the programming of an ESL course.

awareness has been considered positive in several talks and Conferences on the subject. This is the case of a round-table at the Congreso TESOL-Spain XX National Convention on «Learner Development» attended by the author (April 1997).

The main proposal was that if teachers are going to have the main responsibility for instigating the learner's growth and self-direction through a strategy training component, they have to begin by being trained in what this process consists of and how to carry it into the classroom:

This knowledge must begin by suspending our views of ourselves as teachers to reflect critically on ourselves as learners, for if we have no notion of the strategies we ourselves use and therefore no notion of the true complexity of a task, it will be difficult for us to construct tasks for learners, much less teach them the strategies they may use to plan and conduct these tasks (Galloway & Labarca 1990:151).

In addition to a teacher's self-awareness, the students also have to be open to the implementation of such a scheme or, as Rebecca Oxford (1990:200) says, they need to be prepared to develop their attitudes, beliefs and a positive motivation — the affective aspect of language learning. For those who continue to passively expect the teacher to control their every move, either through lack of self-confidence or closed-mindedness, the changes must be introduced gradually. This gives them time to discover their autonomous role and also the satisfaction that comes from the process.

Finally, we must not forget that the student brings his own hidden agenda to the classroom and what he learns is greatly determined by that. This means that even when using training strategies we cannot assume the students will learn how to use them or even try to. Nunan (1989) brings up the matter suggesting that the best way to resolve the problem is to attempt to draw the student's and the institution's «agendas» as close together as possible. By consulting

or negotiating the content and methodology of the course with the class, students can be invited to state their own communication objectives in the L2, being trained by the teacher to evaluate themselves and the course, and finally being introduced to *learning how to learn* components into the syllabus. In summary, the learner should be left more independence, more decision-making power, and therefore more responsibility in his language learning. This clearly coincides with the philosophy of the new academic curricula and its attempt to make the student more conscious and committed to his curriculum, and ultimately with his own learning.

9. Conclusion

The incorporation of a strategy training component into an ESP programme, or into any ESL setting, must be taken as an opportunity to encourage learner's independence as well as raise teacher and student's awareness of what language is, how it works, and how it is learnt. It is a way to expose learners to a series of tactics, operations or tricks that can help them examine their own attitude to the learning of the target language; to acknowledge their modes of learning and approaches to tasks or activities; to improve their communicative skills and assess their performance of the L2. In a word, students are made aware of their ability to control their own learning experience.

This article proposes an approach for the practical integration of a strategy component into a course syllabus. I have suggested various strategies that can be developed in didactic units within the compulsory subject of «Scientific and Technical English». Although one must bear in mind that it is not possible to encapsulate every situation in which students might need to utilise these strategies, it is useful to explicitly define strategies for every activity in such a way as to improve both their language skills and learning skills. The teacher should be the one to foster a «meta-consciousness» in the learners so they realise the relevance of *learning how to learn*. Learners

in turn, being more responsible for their own language development, have to take on the challenge to become more autonomous, to identify their strengths and weaknesses, and to self-direct the process. It is a question of reinforcing the learning and use of the language without altering the content of the instructional programme. At first glance, this proposal might seem complicated, but as I have argued it is highly accessible and can be customised to the objectives of any ESP course.

WORKS CITED

- Brown, J.D.** (1989) «Language Program Evaluation: a synthesis of existing possibilities». In Johnson, R. K. ed. *The Second Language Curriculum*. Cambridge: Cambridge University Press.
- Bruner, J.** (1966) *Towards a Theory of Instruction*. Harvard: Harvard Press.
- Byalystok, E.** (1981) «The Role of Conscious Strategies in Second Language Proficiency». *The Modern Language Journal* 65/1: 24-35.
- Carver, D.** (1984) Plans, Learner Strategies and Self Direction in Language Learning. *System* 12/2:123-31.
- Chamot, A. U. & Kupper, L.** (1989) Learning Strategies in Foreign Language Instruction. *Foreign Language Annals* 22:13-28.
- Cohen, A.D.** (1998) *Strategies in Learning and Using a Second language*. New York: Addison Wesley Longman.
- Ellis, G. & Sinclair, B.** (1989) *Learning to learn English*. Cambridge: Cambridge University Press.
- Galloway, V. & Labarca, A.** (1990) From Student to Learner: Style, Process, and Strategy. In Birckbichler, D. W. ed. *New Perspectives and New Directions in Foreign Language Education*. Lincolnwood (IL.): NTC Publishing Group.
- Hajer, M.; Messtringa, T.; Park, Y.Y.; and Oxford, R.L.** (1996) How print materials provide instruction in Oxford R.L. (ed) *Language learning strategies around the world: cross-cultural perspectives* (Technical Report 13). Second Language Teaching and Curriculum Center, University of Hawaii, Honolulu. 119-40.
- Halbach, A.** (1996/98) *What Student Diaries can tell us about Strategy Use*. M.Sc. in Teaching English. Birmingham: Aston University. 1-25.

- Halbach, A.** (1997) *Exploiting Traditional Textbooks for Strategy Training: Some Practical Ideas*. *Tesol-Spain Newsletter* 20/3: 33-4.
- Jones, S.** (1993) Cognitive Learning Styles: does awareness help? A Review of Selected Literature. *Language Awareness* 2/4: 195-207.
- Kindelán, P.** (1992) *Strategies used by Mining Engineering Students in an EAP Context*. M.A. Dissertation in Teaching English as a Foreign Language. Reading (England): University of Reading Press.
- Kindelán, P.** (1997) Raising Learning Awareness in the EST Classroom: Practical Application in a Lesson. *Revista Alicantina de Estudios Ingleses* 10: 109-137.
- Larsen-Freeman, D. & Long, M.** (1991) *An Introduction to Second Language Acquisition Research*. London: Longman.
- McDevitt, B.** (1997) Learner autonomy and the need for learner training. *Language Learning Journal* 16:34-39.
- Naiman, N.; Frohlich, M.; and Todesco, A.** (1978) *The Good Language Learner*. Toronto: Modern Language Centre, Ontario Institute for Studies in Education.
- Nunan, D.** (1988) *The Learner-Centered Curriculum*. Cambridge: Cambridge University Press.
- Nunan, D.** (1989) *Understanding Language Classrooms: a guide for teacher-initiated action*. New York: Prentice Hall.
- O'Malley, J. M. & Chamot, A. U.** (1990) *Learning Strategies in Second Language Acquisition*. Cambridge: Cambridge University Press.
- Oxford, R. L.** (1990) *Language Learning Strategies. What every teacher should know*. Boston (Mass.): Heinle & Heinle.
- Rubin, J.** (1975) What the «Good Language Learner» can teach us. *Tesol Quarterly* 9:41-51.
- Stern, H. H.** (1976) What can we learn from the Good Language Learner? *Modern Languages in Scotland* 11:71-85.
- Taylor, B.P.** (1975) Adult Language Learning Strategies and their Pedagogical Implications. *Tesol Quarterly* 9/4:391-9.
- Vann, R. J. & Abraham, R. G.** (1990) Strategies of Unsuccessful Language Learners. *Tesol Quarterly* 24/2:177-98.
- Victori, M.** (1994) *The Importance of Person, Task and Strategic Knowledge in Language Learning*. Ponencia presentada en IV Simposio Internacional sobre Estrategias de Aprendizaje y Uso de la Lengua. Alcalá de Guadaíra. Sevilla.
- Weaver, S. J. & Cohen, A.D.** (1994) Making Learning Strategy Instruction a Reality in the Foreign Language Curriculum. In Klee, C. ed. *Faces in a*

Crowd: The Individual Learner in Multisection Courses. Boston (Mass.): Heinle & Heinle. 285-323.

Weinstein, C. E. & Underwood, V. L. (1985) Learning Strategies: The How of Learning. In Segal, J. W.; Chipman, S.F.; and Glaser, R. eds. *Thinking and Learning Skills: Relating Instruction to Basic Research.* Vol. 1. Hillsdale (N.J.): Lawrence Erlbaum Associates, Publishers. 241-58.

Wenden, A. (1986) Helping L2 Learners think about Learning. *ELT Journal* 40/1:3-12.

Wenden, A. (1987) An Expanded View on the Cognitive Abilities of L2 Learners. *Language Learning* 37/1:573-97.

Wenden, A. (1991) *Learner Strategies for Learner Autonomy.* New York & London: Prentice Hall.

Wenden, A. & Rubin, J. (1987) *Learner Strategies in Language Learning.* New York & London: Prentice Hall.

Willing, K. (1989) *Learning Strategies in ESL. Teaching how to Learn.* National Centre for English Language Teaching & Research (activity worksheets). Sydney: Macquarie University.

Timing: 2,5 hours (0,5 hour theory, 2 hours practice)

UNIT 3

Language Content	Functions	Notions	Topics/ Themes	Skills and activities	Aims
<p>- Is/ are used to...</p> <p>Serves to...</p> <p>- To...</p> <p>In order to...</p> <p>So that...</p> <p>-ing/ -ed forms.</p> <p>- Review of certain multi-word verbs:</p> <p>To consist of/ in.</p> <p>To be composed of.</p> <p>To apply for.</p> <p>To belong to.</p> <p>- Prefixes and suffixes:</p> <p>un-/ mal-/ over-/ pre-</p> <p>mono-/ mis-/ de-/ re-</p> <p>- ify/ -less/ -ly/ -ise/</p> <p>- ible/ -ive.</p> <p>- Nominalization.</p>	Expressing function and purpose.	Utility and purpose.	Electric power systems.	<p>1. Predicting.</p> <p>- Predict the contents of the text by examining a series of pictures extracted from it.</p> <p>- Match the pictures with their corresponding footnotes.</p> <p>- Scan the text to confirm your predictions.</p> <p>2. Intensive reading.</p> <p>- Answer some questions to check comprehension.</p> <p>- Complete some sentences expressing the function of «protective relays».</p> <p>- Write down the three purposes served by protection devices.</p> <p>3. Describe briefly in your own words, if possible, how plunger relays operate.</p> <p>4. Listening for specific information (understanding a lecture on «electric power transmission»).</p> <p>1) Draw the graph by placing dots and then connect the dots on the graph with solid lines.</p> <p>2) Complete the graph with the information and figures given in it.</p> <p>3) Answer the questions in each section.</p> <p>5. Nominalization. The habit of turning verbs into nouns or names.</p> <p>- Rewrite the sentences below using verb structures.</p> <p>6. Vocabulary work.</p> <p>1) Complete the following verbs with the corresponding preposition.</p> <p>2) Word formation:</p> <p>Prefix: un-/ mal-/ over-...</p> <p>Suffix: -ify/ -less/ -ly...</p> <p>- Look through the text again and find words with both prefixes and suffixes.</p> <p>- Then rewrite the sentences below using words with prefixes. Do the same with the sentences in next page using words with suffixes.</p> <p>- Pick out all the «-ed» and «-ing» forms you can find in the text and order them according to their function.</p> <p>- Use translation to understand some difficult terms/ expressions, and increase comprehension.</p>	<p>To be able to:</p> <ol style="list-style-type: none"> Describe the function of an instrument and its purpose. Predict the contents of a text by using extralinguistic information (pictures). Complete a graph by following a set of instructions. Recognize some of the more common prefixes used in scientific-technical English. Correctly employ the grammatical forms -ed and -ing within a text. Recognize nominalizations, so common in scientific/ technical writing, and be able to change noun structures into verbs to simplify sentences (or «style» in general). Translate as needed to understand the meaning of certain difficult terms and expressions.