APPLIED LANGUAGES:
THEORY AND PRACTICE IN ESP

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This article aims to study the topic of Learning Strategies (LS), one of the most recent approaches to second language acquisition. In this case, the second language forms part of a branch within the English language, namely English for Specific Purposes, or ESP.

Rubin (1975) and Naiman, Frohlich, Stern, and Todesco (1978) systematised LS when they realised that several "good learners" used particular strategies to acquire English in certain learning situations. Later, Cognitive Psychology (Anderson 1983 & 1985) validated the existence and use of these strategies, showing that they support cognitive mental processes which are necessary for learning a language.

Many researchers have approached the topic of LS applying them to specific parts of a second language acquisition process. As far as we know, O'Malley and Chamot (1990) and Oxford (1990 & 1993) have best compiled the results of previous investigations and have also made theoretical and methodological proposals on how to apply learning strategies to the second language acquisition processes. Nevertheless, as Oxford (1990: 16) claims, at this point in the short history of language learning research, "there is no complete agreement on exactly what strategies are; how many strategies exist; how they should be defined, demarcated and categorized."

There is, thus, much to be done on LS. However, it should be expected that ongoing research will bring new discussions which will shed light on the many nuances of this field.

In this paper we will show the results of research carried out on learners of English for Specific Purposes. Our aim is to analyse the use these learners make of learning strategies and how they apply them to acquiring vocabulary.
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We must point out that there is a lack of published works dealing with this topic in Spain, since Languages for Specific Purposes (LSP) have hardly been studied in this country from the viewpoint of language acquisition, as well as from the learning strategies approach. Therefore, we would be pleased if the present paper became a useful aid for researchers, teachers and learners interested in this approach to English language and its acquisition.

Second Language Acquisition and Learning Strategies

The acquisition of a second language is a complex process with various factors intervening. In order to understand the nature and function of learning strategies, it is necessary to set boundaries for strategies in the above-mentioned process of a second language acquisition.

For Ellis (1985), the acquisition of a second language is the product of several factors coming from the learner and from the learning situation. Also, it is the result of a series of unconscious processes, since Second Language Acquisition (SLA) is not a phenomenon that can be predicted. Learners acquire a second language in many different ways. Besides, SLA is a term referring to subconscious or conscious processes by which a language, which is not the mother tongue, is learnt naturally or in a tutored setting. However, although variability and individuality in learning a language must be emphasised, its acquisition is only observable when it is possible to identify some stable processes. To reach this aim it is important to know the factors and stages taking place in the whole learning process.

1. SLA Theories

There has been a long and complex discussion within the research field of SLA up to now. As a result, theories have evolved into new viewpoints and issues on the acquisition of second language.

Contrastive Analysis (CA), the first great theory on SLA, began with the work of Lado (1957), who in turn was influenced by Fries (1952). CA is based on the assumption that a speaker's mother tongue always interferes in the acquisition of a second language. Thus, the comparison between a L1 and a L2 reveals the areas of difficulty for a second language learner and is, then, a basic tool to approach teaching. Thus, the syllabus and materials design are more coherently laid out, since errors can be anticipated.

Once CA was no longer a convincing theory, mainly because many areas of the acquisition process could not be controlled, the idea arose of having learners follow a common path when acquiring a second language. This new insight became more obvious through the research carried out on first language acquisition which demonstrated how children followed a predictable process when learning their mother tongue.

Predictability in the learning process in L1 together with Error Analysis studies with L2 learners showed that negative transfer—one of the aspects referred to by CA—
was not so important. This led to the idea that L2 acquisition also entailed a natural sequence of learning, meaning that any learner, regardless of his/her mother tongue, acquires the grammar of an L2 in a more or less fixed order, creating his/her own grammatical patterns.

Lightbown and White (1987-88) claim that this idea, regarding the learner's language, is a result of the Error Analysis trend. It was not before the late 1960's that researchers began to look into the L2 learner's language. This was the result of Corder's (1967) influential article, "The significance of learners errors."

Another relevant achievement in SLA is the idea of learning Universals. Among other linguists, Lightbown and White (1987-88) agree with this belief when they say that L2 researchers have reached a further position than those working on L1 acquisition with their assumption that Universals play an important role in SLA.

These Universals are common patterns of learning, regardless of the mother tongue. They are creatively construed by learners who gradually build up their own grammar and acquisition process. Selinker (1972) with his "interlanguage hypothesis" and Nemser (1971) with his "approximative systems" explored the theory of the learner's internal competence and, thereby, brought about an advance in SLA studies. Corder (1971) also referred to the same phenomenon as 'idiosyncratic dialects' and 'transitional competence.'

All these concepts explain how learners of a second language build their own interlanguage at some point between L1 and L2; in other words, they create their approximative systems, idiosyncratic dialects or internal competence of transition to L2.

Learning strategies are totally related to learning Universals. Their origin lies in all the above-mentioned research achievements, and they are part of the learner’s internal competence. In this sense, Ellis (1985: 37) claims that regarding the learner as an active part in the SLA process means that the learner both manipulates the L2 data into a form that can be stored and uses the knowledge which is already stored.

2. Learning Strategies

Learning Strategies can be described as the mental processes and behaviours that learners use to understand or retain new information (O'Malley & Chamot 1990). To make an efficient application of LS, these need to be conscious processes for learners in their first stages of acquisition. Once they become conscious, they are automatically executed. In addition, Rabinowitz and Chi (1987) suggest that they must be conscious in order to be "strategic." Furthermore, Weinstein and Mayer (1986) believe LS aim to facilitate the learning process and are purposefully applied by learners. Their goal is to "affect the learner's motivational or affective state, or the way in which the learner selects, acquires, organizes or integrates new knowledge" (Weinstein & Mayer 1986: 315).

Naiman, Frohlich, Stern and Todesco (1978) and Rubin (1975) began research on LS in response to the need to identify the characteristics of the "good learners." who
recognised they were using certain strategies in situations of language learning and that these strategies helped them to learn the language.

In addition, Rubin (1981) proposed a first classification that divided strategies into several groups: those directly related to learning, and those related to how learners of an L2 try to communicate in that language. She further called these latter Communication Strategies.

As for the methodology she used to collect the strategies, Rubin applied classroom observation; analysis of questionnaires and reports, where some learners described the process they had followed, etc. She found that classroom observation was the least useful method. Alternatively, Naiman, Frohlich, Stern and Todesco (1978) proposed another classification, including five categories of LS used by all learners, and a series of secondary categories common only to the “good learners.” They based their classification on interviews with 34 “good learners,” following a model Stern (1975) suggested. Neither of these two models of LS is based on theories of SLA or on cognitive ones, because it is difficult to isolate only those strategies that directly relate to learning a language.

Further studies have been based on cognitive psychology and have focused their interest on the effects coming from the application of LS to specific tasks, or their application by specific learners (Brown, Bransford, Ferrara & Campione 1983; Chipman, Segal & Glaser 1985; Dansereau, Larson, Spurlin, Hytjecker, Lambiotte & Acles 1983). These researchers have demonstrated that the learners’ training in using strategies is effective since their performance improves skills, such as reading comprehension (Dansereau, Larson, Spurlin, Hytjecker, Lambiotte & Acles 1983).

Of all these studies, one of the most relevant was the identification of learning strategies within a theoretical framework of how to process information (Brown & Palincsar 1982). A threefold taxonomy resulted from this, also supported by O’Malley and Chamot (1990), consisting of:

a) **Metacognitive strategies**, which are those that help learners to think about the learning process. Also they help students to process and plan information and later to self-evaluate the results of the learning activity (Brown, Bransford, Ferrara & Campione 1983).

b) **Cognitive strategies** are directly related to the individual tasks of the learning process. They manipulate or transform learning materials (Brown and Palincsar 1982), organizing and processing them through the short-term and long-term memory (Weinstein & Mayer 1986).

c) **Socio-affective strategies**, the third kind described by Cognitivism, deal with the learning process with regard to other learners and also with self-appreciation of the learning process. Researchers like Dansereau, Larson, Spurlin, Hytjecker, Lambiotte & Acles (1983) have demonstrated the efficacy of these strategies in reading comprehension tasks. Also these strategies are based on the interaction between learners helping each other in the acquisition of a specific skill.
R. Oxford (1990) has contributed the most recent work by proposing a novel taxonomy of learning strategies, in which strategies are put in order depending on whether they are used individually or in groups and according to the skill to which they belong. Oxford also presents a new, less technical terminology to describe learning strategies, which permits us to better comprehend when to train learners on how to use them. In proposing this new terminology, Oxford establishes the significant division between direct strategies (memory, cognitive and compensatory) and indirect strategies (social, affective and metacognitive). This new organisation facilitates the final objective of LS: to train learners on how to use strategies when acquiring a language.

In our research we have taken only the cognitive strategies from the model of LS that Brown and Palincsar (1982) proposed, because this model is based on a cognitive theory and, therefore, meets theoretical criteria. Also, it compiles the previous lists of strategies proposed by Naiman, Frohlich, Stern and Todesco (1978) and Rubin (1981), and is the best model suggested by O'Malley & Chamot (1990). In addition, cognitive strategies are more directly related to the linguistic process of acquisition and are of major interest for research purposes.

It seems obvious that in any SLA process learners receive input in L2, relate it to their knowledge received in L1 and build their own acquisition process. We have found interlanguage phenomena within the learner’s internal process in several forms: L2 production and reception, errors, and all kinds of strategies that the learner develops. For Ellis (1985), there are two ways to explain the presence of interlanguage phenomena: from the learners perspective, or as part of a universal learning process. They may make use of their procedural knowledge through the general cognitive strategies, usually called “learner strategies.” Besides, they may be specially skilled and efficient to operate on the input data and thus discover the L2 rules underlying them.

Tarone (1980) distinguishes between three types of learner strategies: learning strategies, which are means through which the learner processes the information he receives from L2 and thus develops his knowledge of the language; production strategies, through which the learner handles the knowledge he/she has of the L2; and communication strategies, which allow the learner to communicate meanings for which he/she needs a deeper knowledge of the L2 (these strategies deal more with language use than with language learning). In this case the learner compensates for his/her lack of knowledge with improvisations, sometimes using them inappropriately.

The study of LS, which nowadays occupies a major position within the SLA research being done, attempts to match the input of information from L2 with the learner’s internal process, in order to determine mutual influence. The method applied to observe learner strategies is deductive, since they cannot be observed directly but only through the learner’s performance and his/her particular linguistic behaviour.

Cognitive Theories Applied to SLA

Cognitive Theory or Cognitivism approaches second language learning from two different perspectives: psychological and linguistic. It is also the only theory that regards...
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the phenomenon of LS to be a major means of explaining how a second language is acquired through the learner's internal and individual processes.

Furthermore, Cognitive Theory is based on psychological cognitivism, which explains how the human mind processes information. According to O’Malley and Chamot (1990), the most important cognitive process related to SLA is that of learner’s strategies in order to approach linguistic knowledge, since

the role of learning strategies in the acquisition of information generally can be understood by reference to the information processing framework for learning. The purpose of this framework is to explain how information is stored in the memory and particularly how new information is acquired. (O’Malley & Chamot 1990: 17)

On the other hand, Weinstein and Mayer (1986: 315) describe these strategies differently. They are seen as the behaviours and thoughts developed while learning, and which influence the learner’s acquisition process.

Anderson (1983) defends Cognitivism as being the best explanation of learning but does not distinguish cognitive strategies from other kinds of cognitive processes. However, for O’Malley and Chamot (1990) it is important to isolate and distinguish these strategies from other cognitive processes, since its main value is that they can be learned and then applied to the teaching/learning of a second language.

Again Weinstein and Mayer (1986) claim that LS have as their main goal to facilitate learning and are consciously used by learners. The aim of these strategies is to influence the learner’s affective state, i.e., the way in which the learner selects, acquires, and manipulates new knowledge.

The distinction between learning, communication, and production strategies is particularly important within SLA (Faerch & Kasper 1984; Tarone 1981). Nevertheless, LS have aroused more interest than the other two. As Tarone (1981) indicates, LS are trials to develop linguistic and sociolinguistic competence in the target language. Motivation for the use of strategies is more a desire to learn a second language than a desire to communicate. However, production strategies are used to reach communication objectives, whereas communication strategies mean that a failure in production has been accepted. Therefore, they play an important role in meaning negotiation among speakers.

In the rest of this paper we are going to show the results of research work carried out on the use of cognitive learning strategies applied to the acquisition of English for Specific Purposes. This particular branch of English language study is characterised by a series of marks which are the result of its “functionality,” since it is used within academic or professional contexts.

Our research follows in the belief that the use learners make of this branch of the English language will determine their learning needs. This permits us to establish the adequate conditions and context in which the language must be learned. Besides, by knowing which strategies learners use, we will improve our ability to design adequate materials.

Bloor and Bloor (1986: 1) express this process in similar terms, stating that “a language learner is as likely to acquire the language from one variety as from another,
but the use of language, being geared to situation and participants, is learned in appropriate contexts."

Selinker (1986) and Selinker and Douglas (1986) completed studies more closely related to our research. Starting from a functional concept of language, they suggest that learners' strategies vary according to the discourse domain, i.e., the extent to which contexts are important or necessary for learners.

Concerning the special relationship between context and ESP, we agree with Robinson (1991: 23) that "the nature of the relationship between context or domain and the learning and use of language is clearly vital to ESP and highly worth investigating."

In our case, the type of specific L2 is Business English in its academic usage in Economics. Our interest was to analyse how learners acquire the lexis of Economics, their subject matters.

We considered three variables in our work:

- cognitive strategies
- learners of specific English as L2
- lexis of Business English (area of Economics).

We chose cognitive strategies for our study because they best reflect the mental processes of knowledge acquisition, and, more precisely, those of second language learning. As for the participants, we used students from the School of Business at the University of Valencia as learners of Business English.

**Research Methodology**

As a whole, we followed the method proposed by Faerch and Kasper (1987), whose basic criteria are:

1. The **aim of the data collection** is to study all the cognitive strategies used by a group of learners of Business English in a task of lexis comprehension.
2. These learners have as a different **type of variable** their general English competence. For this reason, they were divided into two groups, A (high level) and B (low level).
3. The strategies analysed represent **procedural knowledge**. However, the cognitive strategies they use are not related to the first stage of acquisition (declarative knowledge) but rather associated with an automatised stage; in other words, they repeated tasks of lexis acquisition several times. This process can then be defined as procedural knowledge.
4. According to this method, it is possible to analyse one or more **linguistic skills**. We have, however, limited our scope to text comprehension and to the task of lexis acquisition.
5. We used **simultaneous introspection** (i.e., data have been collected at the time when the informants were performing the task). In this way, it is the short-term
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memory which provides the required information. A semi-directed questionnaire was used, together with a group interview, which has the effect of an immediate retrospection, in order to complete the data.

6. Learners had not received any training before this research, although the learning strategies and their importance in the SLA process were explained to them.

7. The model of questionnaire was taken from the Brown and Palincsar’s (1982) learning strategies taxonomy, although learners were free to describe any new strategy they used.

Since only Cognitive Strategies (CS) were tested, the following questionnaire description emphasises CS only. We must mention the fact that these strategies and examples were explained one by one to the learners before collecting the data.

- **Grouping**: I know what a word or expression means because I group the words around it, and this makes it easier to understand it.
  Example: “One hundred workers lost their jobs, and were made redundant.”

- **Deduction**: I know what a word, phrase or sentence means because I apply grammatical norms to it which I already know from English, or from my mother tongue.
  Example: “If I didn’t work well, I would be made redundant.” (The conditional sentence helps one realise that the second part of the sentence is the result of the first part.)

- **Imagery**: I know what a word or expression means because the other parts of the sentence suggest or describe an image that helps me understand it.
  Example: “The place was cold and chilly; everything was frozen, and I felt bitter.” (The first part of the sentence creates an image that helps us understand the word “bitter.”)

- **Auditive Representation**: I know what a word or expression means because it reminds me of a sound.
  Example: “There was a crack when he opened the door. Somebody banged the door behind me.” (“Crack” and “banged” suggest sounds.)

- **Key-word method**: I know what a word or expression means because
  1) It reminds me of a word in my mother tongue which is similar.
     Example: “The music was very loud.” “Reading can be a pleasure.”
  2) It reminds me of a word in my mother tongue which appears in the same subject matter.
     Example: “The interest and therefore the benefits will be substantial.” (In Spanish: “Interés” and “Beneficios.”)
LEARNING STRATEGIES AND THEIR APPLICATION

- **Elaboration**: I know what a word or expression means because I relate my previous knowledge to certain parts of the text that are clear to me.
  
  Example: "The visitors were drinking whisky in the office. Peter took the bottle, which tumbled off the table. I was angry because the papers and reports were completely wet."

- **Transfer**: I know what a word or expression means because I use grammar rules from English in order to understand it.
  
  Example: "On the test quality there were no comments." "On the quality test there were no comments." (Word position -syntax- helps in this case.)

- **Inference**: I know what a word or expression means because my knowledge of the subject matter helps me.
  
  Example: "We had to go through customs to move from one country to the other." (Customs = "aduanas" in business Spanish.)

- **Note taking**: I write down next to the unknown word or expression anything that helps me understand the text.

- **Summary**: I make a mental or written summary of the information I am reading.

- **Recombination**: All through the text, I combine mentally or in writing every piece of information which I understand. Then, I try to put the parts together in order to understand the whole meaning.

- **Translation**: I use my mother tongue as a basis to understand all the words, phrases or sentences I can.

Learners were then asked to describe what they had done (in terms of Cognitive Learning Strategies) to understand the underlined words and phrases. During the data collection they had to explain orally what they thought all the words and phrases meant (see Appendix).

**Results**

From the performance of Group A, we observe that their use of CS was considerably high (46.62% average per learner). Besides, the frequency of usage showed that the specific register determined the choice of strategies. This can be proved by showing how much the strategies of translation and inference were used.

The wide use of the grouping, transfer, and recombination strategies, all centred around the target language, demonstrates that the theory of the "good learner" is also true in the context of the present research.
Thus, learners in Group A used principally the strategies which deal with grammatical and linguistic norms of the target language, because of their advanced knowledge of English. The results reveal that their lexis acquisition is more effective, since they are always operating in the sphere of L2. As for Group B’s performance, the number of strategies used was considerably low (22.50% average per learner). The frequency in which they applied the strategies shows that the frequent use of the translation and inference strategies coincides with that of Group A. This confirms our hypothesis that text register strongly influences the choice of strategies. Nevertheless, the remaining strategies applied by Group B do not coincide with those of Group A.

Conclusion

After having analysed the performance of both groups of learners, our conclusions are twofold. On the one hand, and confirming what previous researchers had noted, a better standard of knowledge in L2 presupposes a better use and application of CS. This result comes about because a good mastery of L2 leads learners to use the more appropriate CS, which, in turn, helps them acquire specific structures and forms of a language.

As a result, it can be said that strategies are not indiscriminately valid at any stage of the acquisition process. In other words, strategies should be taught within an order of hierarchy which permits learners in their first phase of language learning to use non-cognitive strategies, such as metacognitive and socio-affective ones. However, more advanced learners apply more complex strategies, preferably cognitive ones. In this more advanced stage, their better knowledge of L2 will make their handling of the cognitive aspects of acquisition easier.

On the other hand, we can state that the subject matter studied by learners (in our case Business/Economics English) influences in a determining way their choice of strategies. Our research shows that a group of students of Business/Economics English chose, to a large extent, the translation and inference strategies. These strategies represent the shortest path to acquire lexis, bearing in mind that all learners knew the Business/Economics terminology in their L1. These results lead us to conclude that, in a future training programme in LS for Specifc English learners, we must take into consideration the subject matter and adjust the training programme to focus upon it. Learners will therefore receive training in strategies that consider subject matter a main part of the programme.

References


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Appendix

**Importance of the Stock Exchange**

Many large businesses need to appeal to the public for the vast sums of money they require to finance the purchase of new premises, new machinery, or to expand the business. People are not willing to invest money to finance this sort of development unless they can be sure that they can get the money back again. But, as we have observed earlier in this chapter, the business uses the money invested with it, and it cannot be returned.

When an investor needs his money back, he does not need to go to the company with whom it was originally invested. Instead, the investor sells his shares to some other investor through the stock exchange. In other words, although the Stock Exchange does not directly raise new capital for business, it encourages people to invest in companies because it provides facilities for the sale of second-hand securities.

The government also needs to borrow money from the public to help finance the many industries and services it provides through central or local government. These require continuous supply of new capital to fund new equipment and development research. Local
and central government and the nationalised industries rely on the Stock Exchange to help raise the capital they need.

All Stock Exchanges have an international importance because they provide a market for the shares of foreign countries. For example, more than half of the value of the shares quoted on the London Stock Exchange is made up of the shares of overseas countries.

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