Teaching Abstract Subtechnical Vocabulary

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ABSTRACT

This paper explores various aspects of the teaching of absrract subtechnical vocabulary. Vocabulary items in this category are very difíicult to learn and teach, while they are essential for reading comprehension (especially in an ESP/EAP context) as well as for advanced-level writing and speech, where a certain level of lexical sophistication is part of communicative success. It is argued that the learning of abstract vocabulary is more difíicult in that such items are rather difíicult to associate with a visual image and sense relations such as hyponymy and antonomy are less important for them than for concrete vocabulary. Apparently, the most important relation for such words is the collocational relation, and teaching abstract vocabulary should be synonymous with teaching collocations. Students must be made conscious of the importance of multiword units in general, and of collocations with abstract words in particular. While the present paper is not primarily concerned with a systematic description of the methodology that can be employed, it does suggest various procedures suitable for practising abstract vocabulary. Vocabulary tests and the use of Ll equivalents are discussed.

KEY WORDS: LSP, Subtechnical, Vocabulary Acquisition

RESUMEN

En este trabajo se revisan algunos aspectos de la enseñanza del vocabulario técnico y abstracto. El léxico de este ámbito es generalmente difícil de aprender y enseñar, aunque sea esencial para la destreza de comprensión lectora (especialmente en contextos de enseñanza de lenguas para fines específicos) así como para la destrezas de expresión escrita y oral, en vista de que cierto nivel de conocimiento léxico es un componente fundamental del éxito comunicativo. Se ha planteado que el aprendizaje del vocabulario abstracto es más difícil porque es complicado asociar cada unidad léxica con imágenes visuales y porque relaciones semánticas como la hiponimia o la antonimia son menos relevantes en este caso que en el del vocabulario concreto. En este sentido, se ha propuesto que el tipo de relación semántica más importante para este léxico es la colocación y, por consiguiente, la enseñanza del vocabulario abstracto debe ser sinónimo de la enseñanza de las colocaciones. De este modo, los estudiantes deben adquirir conciencia de la importancia de unidades superiores a la palabra aislada y de su colocación junto a voces abstractas. Aunque este trabajo no es una descripción sistemática de la metodología que se puede aplicar a la enseñanza del vocabulario abstracto, se sugieren algunos ejercicios adecuados para su puesta en práctica: especialmente tests de vocabulario y el empleo de equivalencias en la Ll.

PALABRAS CLAVE: Lenguas para fines específicos, Adquisición de vocabulario, Vocabulario técnico

I. ABSTRACT WORDS

Teaching experience and experimental evidence suggest that words with an abstract meaning are more difficult to acquire than words which refer to concrete entities. Words like *adjust, adapt, adopt, admit, affect, attain and available,* usually referred to as 'subtechnical vocabulary' in ESP and EAP literature, present the leamer with a difficult task indeed. The term 'abstract' or 'abstract subtechnical' is used in this paper to emphasize the fact that subtechnical vocabulary includes both abstract and concrete items *(capacity* or *density vs. apparatus* or *acid*) which may exhibit differences from the point of view of learning difficulty. Apparently, it is the abstract items that give learners the greatest difficulty. The term 'abstract vocabulary' will be used in this paper as a shorthand for 'abstract subtechnical vocabulary'.

It will be convenient to summarise here the characteristic features of abstract subtechnical vocabulary. *Adjust, adapt, adopt* and similar items are low-imagery words: they are very difficult to associate with a visual image. Their meaning is rather general and difficult to define. Their sound structure is often similar to other abstract vocabulary items, so they are easy to confuse (cf. the concept of synforms: Laufer, **1985** and **1991).** Phonemically there is nothing unusual or striking about them, so associations on the basis of sound structure which sometimes helps the acquisition of infrequent words like *budgerigar* are difficult to form. Most items of this type belong to the category of verbs; from the point of view of register, they tend to belong to formal vocabulary.

II. WHY SHOULD WE WANT TO TEACH ABSTRACT VOCABULARY?

The obvious answer is that such vocabulary is essential for reading comprehension, especially in an EAP situation. Knowledge of vocabulary in general has been shown to be the single most important factor in reading comprehension (Nation and Coady 1988:97), and knowledge of abstract subtechnical vocabulary has been shown to be of particular importance in reading academic texts. Even though most of the information in LSP texts is carried by technical terms, the fact that subtechnical vocabulary covers a high percentage of all technical texts make it vitally important for reading comprehension (cf. Nation **1988).** Guessing, which is encouraged as a necessary and useful strategy in understanding general texts and fiction is less acceptable in reading an academic text for information. Abstract

vocabulary is even more important for advanced-level writing and speaking skills. The mere fact that one can get oneself understood cannot be regarded as successful communication in situations where a certain level of lexical sophistication is a prerequisite of communicative success.

One of the most common mistakes foreign language learners commit, even at the advanced level, is mixing styles: using familiar instead of formal style and vice versa. However, the use of familiar or colloquial instead of formal vocabulary is far more common than the other way round. One reason of course is that learners have little experience with abstract vocabulary, which is so typical of formal academic writing.

An important feature of abstract vocabulary is that it comes in collocations. *Results* are **obtained,** but *goals* are **attained; hypotheses** are **presented, changes** are **introduced** and *questions* are *posed*. Collocations are relatively easy to understand in a given context, and as a result, learners usually fail to notice that they are faced with a learning task. Most collocations are just not salient enough. While comprehension of academic texts, as noted above, often hinges on knowledge of technical terminology, it may also depend crucially on abstract subtechnical vocabulary. In production the tendency will be for the learner to transfer their L1 collocations into the L2. A case in point is Hungarian *foglalkozni*, which is more or less equivalent to English *deal with* (a question, a problem, etc.). However, the Hungarian verb has a much wider distribution that its English counterpart. Hungarian parents, when they go home, very often *'foglalkoznak a gyerekkel'* [*'deal with the child* ' = they spend some time talking to him/her, ask him/her about school, maybe look at his/her homework, etc.] , so in the English compositions of Hungarian learners parents always *'deal with the child (or the baby)'.* In a similar vein, in academic texts produced by Hungarian learners you will often meet collocations like *'We have dealt with this topic·* [=We studied this problem].

III. HOW DO WE LEARN VOCABULARY?

The process of vocabulary acquisition is a slow and gradual one. An item can be regarded as fully acquired when the learner has mastered both the **form** (phonological structure, stress pattern, syntactic properties, derivational potential) and the **meaning** of the given item (reference, sense and collocational relations; cf. Corder 1973:222). This level of word knowledge is not always attained even in our native language, and very often we only have **partial knowledge** of a considerable

number of words. This fact, however, does not prevent us from using those words in specific contexts (Urdang 1979:50).

The most important first step in the gradual process of acquiring foreign language vocabulary is to learn the most important formal properties of the new word and to associate this form with **something.** This something is usually a visual image or some other word that the learner already knows. The latter, i.e. verbal associations can be made either on the basis of sound or meaning. With respect to meaning, various sense relations can be exploited, either with words of the foreign or of the native language (cf Erdmenger **1985:162).**

Associations build up over time. It is important that the learner should invest mental effort in learning the meaning of a new word. Active involvement in the construction of meaning helps to generate cognitive depth and aids retention. Looked at from this point of view, offering a NL equivalent to the learner is not very effective; however, as a first step in the process of acquisition, it might be helpful.

IV. CAN WE TEACH VOCABULARY?

In recent years there has been renewed interest in vocabulary research, yet there is still a lot of uncertainty about **teaching** vocabulary. The reason for this uncertainty is not only the anti-teaching principles of Krashen and some other applied linguists and methodologists, but also the fact that the cornrnunicative approach, which has prevailed in most countries in recent years, is focused on the **message** rather than the **code,** so teachers have come to be rather uneasy about any activity that is directed at learning the **code** (Cowie **1992:11).** The learner is expected to learn word meanings from context, preferably incidentally. Lexical guessing and extensive reading are encouraged as conducive to good reading strategies and vocabulary acquisition.

Guessing on the basis of context and learning words incidentally, however, have their own problems. We cannot be sure that the learner will have guessed correctly. We cannot be sure that the words he/she has acquired by extensive reading will be available for productive use. It has also been shown that the chance of incidentally learning an infrequent item by extensive reading is very low indeed if the learner is reading for information. In English, pronunciation and stress may be mislearnt in this way.

Consequently, **learning words and word meaning from context and by extensive reading must be supplemented by activities aimed at the code.** Channell

(1988:94) claims that vocabulary work does not necessarily have to be integrated with general classroom communication; it can be **a separate learning activity.** The leaming of words in the native language is a more conscious process than that of learning grammar, and it is not always contextualized. Thus, the choice of lexical items remains a more conscious process than the use of grammar knowledge in both L1 and L2 communication

V. TECHNIQUES

A number of techniques and activities are available for vocabulary work, and most of these techniques can be used for teaching abstract vocabulary, too. It should be noted, however, that different vocabulary areas may require different techniques, and the techniques most commonly used might not be suitable for all vocabulary areas. In general I have found that there are very few exercises - either in general coursebooks or LSP textbooks - where the main emphasis is specifically on abstract subtechnical vocabulary. Thus, for instance, the semantic field technique coupled with componential analysis (Rudzka et al. *1981)* works very well with concrete verbs (e.g. the verbs meaning *reduce in particle size* shown in Channell, 1988), but is less adaptable to the teaching of abstract verbs like *adapt.*

Exercises in synonymy are often helpful (*adjust - change, attain - achieve, adopt - accept),* but using synonyms to define the meaning of and practise abstract vocabulary have their inherent dangers. One of the dangers of relying on synonymy is that the synonym will be remembered rather than the targeted word. I observed this effect in the course of a note-taking practice with college students. When I had played a recorded lecture to them and asked them to give synonyms for some of the abstract vocabulary items in the lecture, they summarised the lecture from their notes using the more concrete and more frequent colloquial synonyms that I gave them during the listening phase to explain the meaning of the targeted items.

As I noted above, the most important sense relation for absuact vocabulary is probably the **collocational relation.** It stands to reason that in designing vocabulary exercises specifically for teaching absuact vocabulary, it is this relation that could help us most and should be maximally exploited. While it is difficult to form a visual image of the meaning of *attain*, and to store it in semantic memory, it seems possible to remember it from verbal associations such as *attain a goal,* or *attain a level,* and store it in verbal memory.

Interesting activities with collocations are now provided in many vocabulary books (e.g. Ellis and Redman, 1992), yet it is safe to say that collocations with abstract subtechnical vocabulary do not receive sufficient emphasis in teaching ESP/EAP. One reason is that in studying ESP/EAP texts technical terminology tends to occupy the attention of teacher and leamer alike. Indeed, the text can often be understood on the basis of technical terminology alone. Another reason is that habitual collocations do not as a rule present comprehension problems: it is only when it comes to producing them in the foreign language that problems appear. Surprisingly, even advanced students fail to recognize habitual collocations, and **awareness-raising** is certainly needed in this area.

The claim that vocabulary work can, and perhaps should be a separate activity does not mean that it should always or overwhelmingly be concemed with isolated items. In most cases it is convenient to use a text as the starting point. Listening to recorded lectures may take care of the problem of pronunciation: by presenting the spoken before the written form it helps the leamer to avoid pronunciation problems in long, leamed words. Recorded lectures can be used for collocational practice, too: students can be asked to recall the verbs collocated with the nouns or the nouns collocated with the verbs. Prediction exercises (predicting what verbs or adjectives will be collocated with a given noun in a text whose title, author and source they know), a standard procedure in general text-centred exercises, is also recommended. Exercises in synonymy (e.g. rewrite exercises), for reasons stated above, are best used in the colloquial to formal direction, not the other way round. Companson of texts in different registers on the sarne topic may also be useful, again with the proviso that it does not reinforce the students' tendency to use colloquial language where formal language is more appropriate. Organising vocabulary along the lines of Rudzka et al. is helpful, wherever viable; it may not work very well with abstract vocabulary. Examples for some of the exercises referred to above are provided in the Appendix.

Extensive reading should of course be exploited, but the attention of leamers should be directed towards certain linguistic points, especially collocations with abstract vocabulary. Follow-up work on vocabulary (e.g. pronunciation and stress) should be encouraged.

VI. TEACHING AND TESTING

A frequent criticism of vocabulary teaching has been that in most cases it is not **teaching** but **testing.** This author does not agree with that objection. It makes perfectly good sense to practise vocabulary by testing what is known, or can be supposed to be known. Also, most language testing materials are very well suited to language teaching purposes. A good example of a vocabulary test which seems to be quite suitable for practising vocabulary, especially absuact vocabulary is the test developed by Read (1993). This test is aimed at measuring not only how many words, but also how many meaning relations among words the student knows (measuring vocabulary depth as against vocabulary breadth). The stimulus word is accompanied by 8 other words, 4 of which can in some way be related to the prompt, while the other 4 have nothing to do with it. The technique is very well suited to testing collocations with abstract words. Here is an exarnple:

> ***attain***
> *level*   *girl*   *certificate*   *goal*
> *goalpost*   *attend*   *lesson*   *reach*

Three of the above items *(level, certificate* and *goal)* are collocationally related to *attain,* while one *(reach)* is a synonym. Discussing the acceptability of improbable collocations may provide opportunities for practising speaking skills: finding a context for an unusual collocation and explaining what it could mean in that context can provide opportunities for inventive students. Some students of mine have tried to argue the case for *attaining a goalpost* or a *girl.*

VII. THE NATIVE LANGUAGE EQUIVALENT

Most teachers feel rather guilty about using the native language equivalents in teaching vocabulary. Yet we know that many students use the bilingual dictionary and leam vocabulary using bilingual word lists. Should such practices be tolerated, exploited or encouraged?

With general, concrete vocabulary items the L1 equivalent might serve as one kind of association, and there is no reason why it should not be allowed, even though it is of limited usefulness. Later on the leamer may be weaned from the L1 equivalent and expected to establish a direct link between the L2 item and its visual

representation, or come to understand the meaning of the L2 word in terms of its L2 meaning relations. With abstract vocabulary, the use of or transition to other (e.g. visual) associations is difficult, if not **impossible**, sense relations are less clearly articulated, and polysemy is usual; under such conditions the use of L1 equivalents is bound to **have** adverse effects, that is, the association between the L1 and L2 term will **become** permanent. To avoid this, the collocational approach is again recomrnended.

There is one way, however, in which L1 equivalents might be **useful** in teaching abstract vocabulary, and this **is** in teaching students to **recognize collocations.** Such teaching may consist of the following (an **example** for this exercise is provided in the Appendix).

    a. Read the following text and underline **all** habitual collocations.
    b. Recall the L2 collocations on the basis of L1 collocations.

At first, most students will probably fail to **identify all** the collocations in the text: they will fail to notice that sequences **like** *adopt* a **decision** are not free word combinations. However, when they are **called** on to produce, the difficulty of **recall** or the unacceptability of a literal translation may help to sensitize them to the collocation as a **unit**.

VIII. CONCLUSION

Subtechnical vocabulary has **been** a centre of interest in LSP teaching in recent years. However, little attention has **been** devoted to differences within subtechnical vocabulary. The present author is convinced that abstract subtechnical vocabulary items present **the** learner with a more difficult **learning** task **than** concrete subtechnical vocabulary and should therefore receive special attention.

A nurnber of exercises based on the collocational relation are available for this purpose and new types of exercises may be designed along the lines indicated **in** this paper. The exercises described **here** are **all** aimed at **sensitizing** the **learner** to collocations, to pay conscious attention to the **code**. To **state** the message of the present paper in one sentence: if you want to focus on a specific **feature** of the language you teach, design exercises specifically aimed at teaching those features.

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APPENDIX

1. Prediction exercise

You are going to listen to this passage on human behaviour. Predict the verbs you expect with the following nouns: *difficulty, situation, adjustment*

2. Recollection exercise

Listen to this passage on human behaviour.

> *[…] A difficulty which one person overcomes may defeat another person who may then either give up hope or become angry and try to change the situation by force. In this lecture I am going to talk about what happens when different personalities meet new situations.*
>
> *Whenever a personality meets a new situation, the personality tries to reach an adjustment between itself and the situation. For example, you come into your office and find it too hot for you, so you open a window. The situation is the hotness of the room and the adjustment is the opening of the window. If there is no window to open the personality has to make a different adjustment in the situation, or it has to make an adjustment to itself, by learning to put up with the heat …*

Can you remember which verbs were collocated with the word *situation? (change, meet, make an adjustment in)* and *adjushnent (reach, make)?*

2a. Listen to this passage on human behaviour and write down the verbs and adjectives collocated with the nouns *situation* and *adjustment.*

3. Sumrnarisation exercise

Summarise the passage on human behaviour using these collocations: *overcome a difficulty, a difficulty defeats a person, change the situation by force, meet new situations, reach an adjustment, make a different adjustment in the situation, make an adjustment to itself*

4. Collocation recognition exercise

Read this text and underline habitual word combinations (collocations).

Glyphosate residues in barley

 The herbicide glyphosate has *been* shown to give excellent control of scutch and other perennial weeds when applied about two weeks before harvest in weed-infested cereal crops. Little information is available on residues resulting from different rates of application of the herbicide so near to harvest. Work was therefore undertaken to determine residue levels *in* samples of grain from treated *barley* crops and thereby establish the minimum safety interval between application and harvest.
 The samples were collected at 2-3 day *intervals* from August 18 to September 19, 1980. They included treatments ranging from half to twice the recommended rate of application of glyphosate with and without the addition of 2.24 *kg/ha* ammonium sulphate. The samples had a moisture content of *less* than 30%.
 Although a large number of *analyses remain* to be carried out, the following conclusions can be drawn. *In* general, residue levels increased with rate of application and were highest for 8 *litre/ha* and lowest for 2 *litre/ha*. There was no *significant decrease* in residue levels between the fourth and ninth days *after* spraying. Ammonium sulphate had no observable *effect* on residue levels. The residue levels for the recommended rate of application (4 *litres/ha*) were *all* below the *maximum* residue limit of 8 *mg/kg*.

4a. Read the passage and supply the English equivalents of the underlined Hungarian words.

 The herbicide glyphosate has *been* shown to <u>kiválóan irtja a</u> scutch and other perennial weeds when <u>kiuttatiák</u> about two weeks before harvest in weed-infested cereal crops. Little information is available on residues resulting from different rates of application of the herbicide so near to harvest. Work was therefore <u>állítottunk be</u> to determine residue levels in samples of grain from treated *barley* crops and thereby megallapitsuk the minimum *safety* interval between <u>kezelés</u> and harvest.
 The samples were collected at 2-3 day intervals from August 18 to September 19, 1980. They included treatments ranging from half to twice the

*recommended rate of application of glyphosate with and without the addition of 2.24 kg/ha ammonium sulphate. The samples had a moisture content of less than **30%**.*

*Although a large number of analyses <u>kell **még elvégezni**</u>, the following conclusions <u>levonhatók</u> **In** general, residue levels increased with rate of application and were highest for 8 litre/ha and lowest for 2 litre/ha. There was no <u>jelentős</u> decrease in residue levels between the fourth and ninth days **after** spraying. Ammonium sulphate had no <u>kimutatható hatás</u> on residue levels. The residue levels for the recommended rate of application (4litres/ha) were **all** below the **maximum** residue limit of 8 mg/kg.*

4b. Read the above text **and** decide which of these words and **phrases** actually occurred in the text: *demonstrate, give control of, little **information** is available, residues resulting from, rates of treatment, research was undertaken, establish residue levels, determine the minimum safety interval, collect samples, treatments ranging from … to,, suggested rate, **perform** analyses, draw conclusions, considerable decrease, observable effect*

5. Multiple matching exercise

Read the passage above and then match the items in column **A** with those in column B. (Preferably there should be a time lag of 20 minutes between reading and matching.)

A	B
control	undertake
information	level
application	carry out
work	ranging
residue	give
level	recomrnended
treatment	available
rate	significant
decrease	rate
analyses	determine