Schema–theory Based Considerations on Pre-reading Activities in ESP Textbooks

Parviz Ajideh

Tabriz University, Iran

Bio data:
Dr. Parviz Ajideh is an Assistant Professor in the English Department at Tabriz University in the Islamic Republic of Iran. His research interests include reading, testing, and translation.

Abstract

In most cases a common problem students experience in reading classes is the feeling that they know absolutely nothing about the subject they are reading about. However, this feeling may be more complex than generally thought. The problem may not be the lack of background knowledge, but rather the failure to activate that knowledge. For Ringler and Weber (1984), pre-reading activities provide a reader with necessary background to organize activity and to comprehend the material. These experiences involve understanding the purpose(s) for reading and building a knowledge base necessary for dealing with content and the structure of the material. Ringler and Weber also note that pre-reading activities elicit prior knowledge, build background, and serve to focus attention. Wallace (1992) argues that in order to interact efficiently with the text, the second language reader needs access to content as well as context. In other words, second language readers will need to draw on appropriate schematic knowledge to reach satisfactory interpretation of the text. He continues that, in the light of schema theory, we might think of reading as a comprehension or understanding process that involves three stages, the first of which is called pre-reading. In fact, schematic knowledge has textual representations which are represented by lexical choices made by the discourse producer in the encoding process. Thus, one of the teacher's duties is to help the reader recognize these lexical choices. Any lexical element in a text is the textual representation of an abstract mental concept. This study argues that background knowledge can be provided as a pre-reading activity prior to reading. It is suggested that prior to reading the instructor can highlight those lexical elements in a text that seem to be in close relationship with the topic of the text and by making them transparent, the relevant schemata can be activated in the reader's mind. Finally, I will deal with the question of pre-reading activities in ESP textbooks written for Iranian students as university books by SAMT, and have a close look at the pre-reading tasks suggested in one of these textbooks.

General considerations on ESP course design

ESP is an approach to language teaching which aims to meet the needs of particular learners. This means in principle that much of the work done by ESP teachers is concerned with designing appropriate courses for various groups of learners. Thus, course design plays a relatively minor part in the life of the general English teacher, for the ESP teacher, course design is often a substantial and important part of the workload.

Munby (1978), at the beginning of his book entitled Communicative Syllabus Design states,

> This book has been concerned with language syllabus design. More specifically, the connection has been that, when the purpose for which the target language is required can be identified, the syllabus specification is directly derivable from the prior identification of the communication needs of that particular participant…" (p. 218)

For Mackay et al (1978) when needs are clear, learning aims can be defined in terms of these specific purposes to which the language will be put, whether it be reading scientific papers or communicating with technicians on an oil rig. The result is that almost immediately, teaching can be seen to be effective in that the learner begins to demonstrate communicative ability in the required area.

It may be assumed that a specification of language needs should define the language content of a course designed to meet such needs. But "learner needs" is open to question. In fact two different interpretations may be extracted from learners needs. According to Widdowson (1983) it may refer to terminal behavior, the ends of learning or it may refer to what the learner needs to do to actually acquire the language. The first view follows a goal-oriented definition of needs, whereas, for the second view process-oriented definition of needs is the main concern.

Nunan (1988), also making the distinction between product-oriented and process-oriented syllabuses, states that the product syllabuses are those in which the focus is on the knowledge and skills which learners should gain as a result of instruction, while

process syllabuses are those which focus on the learning experiences themselves. This shift in emphasis has been dramatized by the tendency to separate product-oriented syllabus design issues from process-oriented ones. This has been most noticeable within the so-called British school of applied linguistic, in which focus tends to be either on process or product, but not on both.

Material development in ESP

Generally speaking, the problem of materials is one faced by all teachers. While it may be true that a good teacher can make almost any set of reading materials work in class, it is obvious that properly conceived reading exercises free the teacher to work more efficiently with students to solve individual reading problems. As reading teachers we generally find ourselves in one of two situations: either we are trying to adopt a textbook to suit our needs, or we are trying to find readings and write our own exercises to fill gaps in our curriculum.

As the main concern of this study, it is important that we develop flexibility in sequencing the use of exercises which accompany a reading. Typically, ESP textbook exercises follow the reading section. However, students are more likely to experience success with reading if they are familiar with selected vocabulary items before they begin reading. Likewise, attempting to answer comprehension questions before they begin reading challenges students to read a passage to confirm or refute their guesses. If some activities discussed before the selection is read, students are given the opportunity to think the issues through in advance and thus are able to read far more critically.

Alderson and Urquhart (1984), raising the question of "testing or teaching", say that the traditional pedagogic procedures of asking questions on a text may, in fact, test the student's comprehension rather than teach him strategies which he can use to improve his understanding. As teachers, we are first of all concerned with teaching and only secondarily concerned with testing. Tests measure how much has been understood; exercises practice techniques for understanding.

Point of Departure

Here, the main question to be answered refers to the fact that whether activities and exercises before reading should rely only on eliciting linguistic features, or whether they might play a more important role. At this point it will be more helpful to focus on the importance of schema theory.

Schema Theory

Khemlani et al (2000) asserts that since the late 1960s, a number of theorists (Goodman, 1970; Smith, 1978) have developed interactive theories of reading which place great importance on the role of the reader and the knowledge s/he brings to bear on the text in the reading process. These interactive theories which now dominate reading research and strongly influence teaching practice draw heavily on schema theory.

Schema theory proposes that when individuals obtain knowledge, they attempt to fit that knowledge into some structure in memory that helps them make sense of that knowledge. It also proposes that individuals break down information into generalizable chunks which are then categorically stored in the brain for later recall. Schema theory is an active strategy coding technique necessary for facilitating the recall of knowledge. As new knowledge is perceived, it is coded into either pre-existing schema or organized into a new script. In essence schemata are organized mental structures that aid the learner's ability to understand and associate with what is being presented to them.

Widdowson (1983) has reinterpreted schema theory from an applied linguistics perspective. He postulates two levels of language: a systemic and a schematic level. The systemic level includes the phonological, morphological and syntactic elements of language, while the schematic level relates to our background knowledge. In Widdowson's scheme of things, this background knowledge exercises an executive function over the systemic level of language. In comprehending a given piece of language, we use what sociologists call interpretative procedures for filling the gaps between our schematic knowledge and the language which is encoded systematically.

For Yule (1985) the key to the concept of coherence is not something which exists in the language, but something which exists in people. It is people who make sense of what they read and hear. They try to arrive at an interpretation which is in line with their experience of the way the world is. Indeed, our ability to make sense of what we read is probably only a small part of the general ability we have to make sense of what we perceive or experience in the world.

Schema Activation

Cook (1989) states "The mind stimulated by key words or phrases in the text or by the context activates a knowledge schema" (p. 69). Cook implies that we are not necessarily dealing with conscious processes, but rather with automatic cognitive responses given to external stimuli. This view clarifies that schemata are activated in one of two ways:

1. New information from the outside world can be cognitively received and related to already known information stored in memory through retrieval or remembering. In this case, new concepts are assimilated into existing schemata which can be altered or expanded;

2. New information can be represented by new mental structures. In this case, in absence of already existing schemata, new knowledge builds up new schemata.

According to Plastina (1997), in both cases, the individual is piecing bits of knowledge together, attempting to make sense of them. It follows that the main features of schemata are flexibility and creativity. Schemata are flexible in that they undergo a cyclic process within which changes are brought about actively and economically, i.e., information is stored in memory and provided when needed with the least amount of effort. They are creative in that they can be used to represent all types of experiences and knowledge - they are specific to what is being perceived.

Thus, because texts are never completely explicit, the reader must rely on preexisting schemata to provide plausible interpretations. Yet, there is much evidence that good and

poor readers do not always use schemata appropriately or are unaware of whether the information they are reading is consistent with their existing knowledge.

Pre-reading strategies have been developed to help students relate new information in written discourse to their existing knowledge. The design of many of these pre-organizers reflects Ausubel's (1959) definition of readiness and the purpose is to create a mind-set prior to reading. These pre-organizers have included advance organizers (Ausubel, 1960), structured overviews or graphic organizers (Alvermann, 1981), pre-views (Graves, et al., 1983), concept maps (Noak and Gowing, 1984), and thematic organizers (Alvarez,1983; Alvarez and Risko, 1989; Risko and Alvarez, 1986).

Wallace (1992) argues that in order to interact efficiently with the text, the second language reader needs access to content as well as context. In other words, the second language readers will need to draw on appropriate schematic knowledge to reach satisfactory interpretation of the text. He continues that in light of schema theory, we might think of reading as a comprehension or understanding process that involves three stages (pre, while, and post) the first of which is called pre-reading.

Pre-reading activities
Some pre-reading activities simply consist of questions to which the reader is required to find answers to from the text. Traditionally, this type of activity followed the text and was designed to test comprehension, but in more recent materials questions often precede the text and function as scanning tasks. That is the learner reads the text quickly in order to find specific information related to the questions.

Other pre-reading tasks have tended to focus exclusively on preparing the reader for likely linguistic difficulties in a text and, more recently, attention has shifted to cultural or conceptual difficulties. However, pre-reading activities may not just offer compensation for second language reader's supposed linguistic or socio-cultural inadequacies; they may also remind readers of what they already know and think – in other words to activate existing schematic knowledge.

According to Wallace (1992), one very popular kind of pre-reading task is "brain storming". This may take the form of giving the class a particular key word or key concept, or it may be a newspaper headline or book title. Students are then invited to call out words and concepts they personally associate with the keyword or words provided by the teacher. Brainstorming has many advantages as a classroom procedure. First, it requires little teacher preparation; second, it allows learners considerable freedom to bring their own prior knowledge and opinions to bear on a particular issue; and third, it can involve the whole class. No learner need feel threatened when any bid is acceptable and be added to the framework. For example, these are the kinds of associations which might be called up by the key word money: 'coin', 'bank', 'poverty', 'pay day', 'interest', 'purse', and etc. These bids reflect very different categories and levels of generalization. However, the initial random association can be classified and subcategorized either by the teacher or the students, and additional contributions from class members or the teacher added to stretch existing concepts.

Carrell and Floyd (1987) maintain that the ESL teacher must provide the student with appropriate schemata s/he is lacking, and must also teach the student how to build bridges between existing knowledge and new knowledge. Accordingly, a number of organized pre-reading approaches and methods have been proposed in the literature for facilitating reading through activation of background knowledge. In this regard, Ajideh (2003) suggests schema theory based pre-reading activities in providing the learners with appropriate schemata they are lacking.

Schema theory based pre-reading activities
1. Questioning
One type of top-down processing activity is questioning. Questions may be generated by the teacher or by the students and should be done before the reading, rather than after the reading. Reutzel (1985) has proposed the Reconciled Reading lesson to help teachers form effective pre-reading questions. Teachers can adopt the reconciled reading questions from the comprehension questions that appear in the textbook after the reading selection

or in the teachers' manual. A problem here is that not all the questions originally designed as post-reading exercises can be appropriately converted to pre-reading activities.

   How do students generate text-related questions even before they read the passage? Williams (1987) gives an interesting three-phase (pre-reading, while-reading, and post-reading) approach to reading, with particular attention to the pre-reading phase. The approach begins by introducing the topic of the passage that students are going to read. Once the topic is presented, students are asked to work in groups and write a list in two columns. The first column lists things about the topic that they are sure of, and the second lists things that they are not sure of or don't know. See Figure 8 for an example of what a list about whales might look like:

Figure 8. Whale's List (Chia, 2001, P.5).

Sure	**Not Sure /don't know**
1. Whales are not fish	1. How many kinds?
2. The largest are 40 meters long.	2. How long do they live?
3. There are different kinds.	3. What do they eat?
4. They are used to make soap	4. How fast can they swim?
	5. How heavy are they?

It is suggested that each member of the group in turn volunteer a fact or question, so that no group member is neglected. Afterwards, the teacher asks a representative from each group to write one or two items from their lists on the chalkboard so that some interesting items, which other groups may not have thought of, can be included.

2. Semantic map
According to Chia (2001), many teaching techniques have been developed to activate student's prior knowledge for effective top-down processing in order to facilitate reading

comprehension. Several of them have been empirically proven to be helpful, but some have not. Surprisingly, pre-reading vocabulary exercises, despite widespread use, do not improve overall comprehension (Hudson, 1982; Johnson 1982). In fact according to Johnson, vocabulary study may result in a word-by-word, bottom-up approach that is detrimental to comprehension. But direct vocabulary instruction does not necessarily involve teaching specific words rather than equipping learners with strategies necessary to expand their vocabulary. It is also argued that most vocabulary is learned through context, but that the learning-from-context method is at its best for teaching learning-to-learn skills not for teaching vocabulary (Oxford and Scarcella, 1994). Pre-teaching vocabulary probably requires that the words be taught in semantically and topically related sets so that word meaning and background knowledge improve concurrently. Zimmerman (1997) maintains that direct vocabulary instruction focusing on semantic mapping as an acquisition strategy is more effective than vocabulary acquisition activities that teach only words rather than strategies for acquiring words. The first major activity that activates student's appropriate background knowledge of a given topic is the semantic map (Freedman, 1980; Heimlich and Pittleman, 1986). The map is an organized arrangement of vocabulary concepts which reveals what students already know about the topic and provides them with a base upon which they can construct the new information learned from the text.

   The first major activity that activates student's appropriate background knowledge of a given topic is the semantic map (Freedman, 1980; Heimlich and Pittleman, 1986). The map is an organized arrangement of vocabulary concepts which reveals what students already know about the topic and provides them with a base upon which they can construct the new information learned from the text.

   At first, students may have difficulty in categorizing free associations. The teacher can help them by conducting the discussion with the whole class. When students offer their associations, the teacher can list the responses on the chalkboard and discuss with the students how to put the associations into categories and what to label them. If there is more than one way to construct the relations among different concepts, the teacher may

show students the different possibilities. This demonstration indicates how concepts can be organized around a topic.

After some illustrations, students can be divided into groups to carry out the discussion in teams. Interestingly, each group will usually come up with different versions, categories, and labels. The teacher may ask a representative from a group to draw the map on the chalkboard and decide if the concepts are appropriately constructed. From the demonstration, modeling, and discussion, students themselves will gradually learn how to categorize and label associations appropriately. When generating associations, students are encouraged to look up new words in their dictionaries. The teacher may also consult a dictionary, preferably English-English, to help the students determine if the meaning and usage of new words fit the topic

What we have been trying to argue for is that background knowledge can be provided as a pre-reading activity prior to reading. It is suggested that prior to reading the instructor can highlight those lexical elements in a text that seem to be in close relationship with the main topic of the text and by making them transparent, the relevant schemata can be activated in the reader's mind.

A brief survey on the pre-reading activities/tasks of ESP textbooks in light of findings of the study

Here, it will be more useful to have a brief survey on the pre-reading tasks suggested in ESP textbooks written for SLA students at university level in Iran. Although a considerable number of these books lack pre-reading tasks, I have selected two textbooks as representative examples of ESP books in the Iranian context that contain pre-reading activities:

1. *English for the Students of Science*, by Behnoush Akhavan, Tehran: The center for studying and compiling University Books in Humanities (SAMT), 1994.

2. *English for the Students of Medicine*, by Reza Deedari, Tehran: The Center for studying and compiling University Books in Humanities (SAMT), 1989.

Selected pre-reading tasks from *English for the Students of Science*

In this textbook we deal with four types of pre-reading activities. As an indication, the pre-reading activities suggested for one of the texts will be reviewed in the following:

I. Pronunciation Practice

Here, the phonetic transcription have been given for some words from the text..

II. Vocabulary Study: Definitions

   Matter   whatever occupies space

  Inorganic   not forming part of the substance of living bodies

III. Vocabulary Study: Definitions and examples

  Body   mass: quantity; collection

                He had a large body of facts to prove his statements.

  Clutter   make untidy or confused, often used with 'up'

                She cluttered up the room with unnecessary furniture.

  Conform   be in agreement with

                My views of conduct conform with what seem to me

                the implication of my belief

  Favor   1-friendly regard; willingness to help, protect, be kind to

                2-in favor of: in sympathy with; on the side of

                Was he in favor of votes for women?

  Insatiable   that can not be satisfied; very greedy

He had an insatiable desire for wealth.

IV. Grammatical point to be explained: Passive voice

Physicists interpret natural phenomena in terms of certain concepts.

Natural phenomena **are interpreted** in terms of certain concepts.

Physicists commonly refer to the two major phases of physics as

classical and modern physics.

The two major phases of physics **are** commonly **referred** to as

classical and modern physics.

Selected Pre-reading activities from *English for the Students of Medicine*

In this textbook the pre-reading sections consists four types of activities: pronunciation practice, word study, definitions, word study. Definitions, exemplification, and grammatical points to be explained are the routine and favored activities. In the following we will have a brief survey on the pre-reading activities of one of the texts under the title of the common cold.

I. Pronunciation Practice

Phonetic transcriptions of some words from the text are represented in this part.

II. Word Study: Definitions

Fever:	abnormally high body temperature
Immune:	being protected or safe (from disease or other dangers)
Infection:	act of introducing disease germs, a disease
Symptom:	any condition accompanying or resulting from a disease which aids in identifying the disease

Treat: try to cure a disease

III. Word study: Definitions and exemplification

Adequate: being enough for what is needed

Eight hours of sleep is quite adequate for the average

adult.

Contact   state of touching

The men were digging a deep hole when they came

into contact with an electric power line.

Indicate   point out, show

Fever usually indicates that you have been infected

with a disease.

Nutrition: the process of taking in and using food substances

Adequate nutrition is necessary for good health.

Precaution: care taken to avoid something

You must wear gloves as a precaution when you are

pouring this acid into the test-tube.

Transfer: move or send from one person or place to another.

Flies can easily transfer germs from one surface to

another.

Grammatical points to be explained: Sentence Combining

I. Infinitive clauses

1. a. Many people miss work and school.

    The common cold causes this.

b. The common cold causes many people to miss work and school.

2. a. John read the book.

   The teacher advised it.

  b. The teacher advised John to read the book.

in, through, for

Look at the following sentences:

A. 1. There is acid in that test-tube. (inside)

   2. The oil gets to the engine through this pipe. (from)

   3. The postman has a letter for you. (belonging to)

B. 1. Germs are related in sneezing, coughing or talking. (during)

   2. We can maintain general good health through adequate rest and

      nutrition. (by)

   3. We should dress for the weather. (according to)

Some suggested Schema theory based pre-reading for this text under the title of the common cold

I. .Questions

What do people usually do when they catch cold?

Is it difficult to prevent and treat the common cold? Why?

Who does the common cold spread?

How many times does an average person catch cold in a year?

II. Read each of statement and decide whether it is true or false. Why?

The common cold is an unusual disease.

If you are careful, you won't have any colds.

Antibiotics have more effects on colds.

Feeling tired is one of the early symptoms of a cold.

High fever is a symptom of a cold.

The best treatment for the common cold is to stay in bed.

It is easy to prevent colds.

III . Decide which of the following words seem to be in close relationship with the topic
of the text.

Disease

Car

Cough

Rest

Computer

Book

Germ

Sport

IV. Write a paragraph of about 100 words about the common cold by using the following
key words.

Fever

Immune

Inflection

Sore throat

Symptom

Disease

Healthy

Rest

Sneezing

Coughing

Conclusion

Taking into consideration the activities in sections I and II, it is safe to claim that pre-reading activities used in section I are based on a traditional view (linguistic based) of reading comprehension. The activities suggested as pre-reading tasks in section II are in conformity with bottom-up processes of reading in which working on pronunciation of single words, clarifying the meaning of single words, and explanation of grammatical points are primary importance. In contrast, the schema theory based pre-reading activities suggested in section II are in conformity with top-down processes of reading that help the students to activate their background knowledge. In spite of the importance role of schema theory based pre-reading tasks in activating students' background knowledge it is of regret that the authors of textbooks for college students neglect such useful and effective activities. Moreover, due to the content-based nature of ESP textbooks, such activities should be more favored with ESP textbook authors.

Regarding the importance of such schema-theory based pre-reading activities, the following statements appear sound:

1. These activities are interactive because students are active participants and they work with each other before they target the text.

2. These activities have a predictive nature because in the pre-reading phase, the students' discussion basically anticipates what will appear in the reading material.

3. These activities are student centered because they make use of the students' prior knowledge and the students have control over the process of learning.

4. These activities create a fresh atmosphere in ESL class and motivate the students to enhance their learning.

References

Ajideh, P. (2003) Schema theory-based pre-reading tasks: A neglected essential in the

ESL reading class. *The Reading Matrix: An International Online Journal*, *3*(1), http://www.readingmatrix.com/articles/ajideh/article.pdf

Alderson, J. C. and Urquhart, A.H. (1984). *Reading in a foreign language*. London: Longman.

Alvermann, D. (1981). The compensatory effect of graphic organizers in the learning and retention of meaningful verbal material. *Journal of Educational Research and Instruction*, *28*, 1-15.

Alverz, M. (1983). Using a thematic pre-organizer and guided instruction as an aid to concept learning. *Reading Horizons*, *24*, 51-58.

Alverz, M. and Risko, V. (1989). Using a thematic organizer to facilitate transfer learning with college developmental studies. *Reading Research and Instruction*, *28*, 1-15.

Ausubel, D. (1959). Viewpoints from related disciplines: Human growth and development. *Teachers College Record*, *60*, 245-254.

Ausubel, D. (1960). The use of advance organizers in the learning and retention of meaningful verbal material. *Journal of Educational Psychology*, *51*, 267-272.

Ausubel, D. P. (1978). In defence of advance organizers: A reply to the critics. *Review of Educational Research*, *48*, 251-258.

Carrell, P. and Floyd, P. (1987). Effects on ESL reading of teaching cultural content schema. *Language Learning*, *37*, 88-108.

Chia, H.L. (2001). Reading activities for effective top-down Processing. *FORUM*, *39*(1) January/March, p. 22.

Cook, G. (1989) *Discourse in language teaching: A scheme for teacher education*. Oxford: Oxford University Press.

Deedari, R.(1989). *English for the students of medicine*. Tehran: The Center for studying and compiling University Books in Humanities (SAMT).

Freedman, G., and Reynolds, E.. (1980). Enriching basal reader lessons with semantic webbing. *The Reading Teacher*, *33*, 677-684.

Goodman, K. (1970). Reading as a psycholinguistic guessing game. In H. Singer and R. B. Ruddell, (Eds.), *Theoretical models and Processes of Reading* (pp. ??). Newark, N.J.: International Reading Association.

Graves, M., et al. (1983). Effects of previewing difficult short stories on low ability junior high school students' comprehension, recall, and attitudes. *Reading Research Quarterly*, *18*, 262-267.

Hemlich, J. E. and Pittleman, S.V. (1986). *Semantic mapping*. Newark, Del.: International Reading Association.

Hutchinson, T. and Waters, A. (1987). *English for specific purposes: A learner-centered approach*. Cambridge: Cambridge University Press

Hudson, T. (1982). The effects of induced schemata on the 'Short-Circuit' in L2 reading: Non-decoding factors in L2 reading performance. *Language Learning*, *32*, 1-32.

Johnson, P. (1982). Effects on reading comprehension of building background knowledge. *TESOL Quarterly*, *16*(4), 503-16.

Khemlani, M. D. and Lynne, N. (2000). Selection of reading texts: Moving beyond content schema. *Literacy Across Cultures*, *4*(1).

Mackay, R. and Mountford, A.(1978). *English for Specific Purposes*. Longman.

Munby, J. (1978). *Communicative syllabus design*. Cambridge: Cambridge University Press.

Noak, J. and Gowing, D. (1984). *Learning how to learn*. New York: Cambridge University Press.

Nunan, D. (1988). *Syllabus design*. Oxford: Oxford University Press.

Oxford, R and Scarcella, R. (1994). Second language vocabulary learning among adults: State of the art in vocabulary instruction. *System*, *22*(2), 231-243.

Plastina, A.F. (1997). MA in Linguistics (TESOL) University of Surrey, U.K. Unpublished dissertation.

Reutzel, D. R. (1985). Reconciling schema theory and the basal reading lesson. *The Reading Teacher*, *39*(2), 194-198.

Risko, V. and Alvarez, M. (1986). An investigation of poor readers' use of thematic strategy to comprehend text. *Reading Research Quarterly*, *21*, 298-316. [EJ 337 401]

Smith, F. (1978) *Understanding reading: A psycholinguistic analysis of reading and learning to read.* New York: Holt, Rinehart and Winston.

Wallace, C. (1992). *Reading*. Oxford: Oxford University Press.

Widdowson, H. G. (1983) *Learning purpose and language use*. London: Oxford University Press.

William, E. (1987). Classroom reading through activation of content-based schemata. *Reading in a Foreign Language*, *4*(1), 1-7.

Yule, G. (1985). *The study of language*. Oxford: Oxford University Press.

Zimmerman, C. B. (1997). Historical trends in second language vocabulary instruction. In J. Coady and T. Huckin (Eds.), *Second language vocabulary acquisition* (pp. 5-19) Cambridge: Cambridge University Press.