BRINGING TODAY'S VOCABULARY RESEARCH INTO TOMORROW'S CLASSROOMS

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In the early 1980s there were attempts to bring the study of vocabulary learning and teaching into the mainstream of second language acquisition research and theory. Paul Meara in his 1980 review paper "Vocabulary acquisition: a neglected aspect of language learning" in *Language Teaching and Linguistics* wrote of vocabulary acquisition receiving "short shrift from applied linguistics" particularly regarding a theory of second language vocabulary acquisition, and being "very largely neglected by recent developments in research" (p. 221). Batia Laufer in 1986 pointed out a similar neglect noting that in many of the important books and articles in the field of applied linguistics **language** means "grammar" with vocabulary only occasionally getting a mention. Laufer suggests reasons for this neglect. "Grammar and phonology are closed systems and therefore lend themselves to much more abstraction and generalization than vocabulary" (p. 70). Vocabulary was associated with "imitation, practice, generalization and reinforcement rather than with processes of hypothesis formation and testing, which is characteristic of grammar" (p. 71).

A study of the numerous papers published on first and second language vocabulary suggests that the perceived neglect of vocabulary was only partly the result of a lack of research, but was also a result of the tendency for vocabulary studies to go on outside the mainstream of second language research and theory. That is, rather than working within current focuses of interest, vocabulary research tended to follow earlier traditions. This had both advantages and disadvantages. The major advantage was that vocabulary research was not much affected by fashions in teaching methodology and thus unfashionable but productive lines of enquiry continued to be pursued. These included corpus-based frequency studies, paired associate learning, studies of vocabulary size and growth, and discrete-point vocabulary testing. The major disadvantage was that the foci and results of this research were not integrated into mainstream research and theory and tended to be ignored.

This paper therefore examines the messages that vocabulary research has for the mainstream and suggests that we have to be careful not to ignore too much of the past. It also suggests that the focus of vocabulary studies will need to change to take account of a reconceptualisation of the relationship between vocabulary and grammar.

We will look at four areas of research (see also Appendix 1):

1. Teaching and authenticity
2. Units of analysis or progression in curriculum design
3. The role of language-focused instruction
4. anguage testing

One of the assumptions behind this paper is that a balanced language course should contain four major strands which can appear in a variety of ways:

(1) Learning through meaning-focused input, that is through listening and reading where the learners' attention is on the ideas and messages conveyed by the language

(2) Learning through deliberate attention to language items and language features, that is through attention to the sounds and spelling of the language, through direct vocabulary study, through grammar exercises and explanation, and through deliberate attention to discourse features

(3) Learning through meaning-focused output, that is through speaking and writing where the learners' attention is on conveying ideas and messages to another person

(4) Developing fluent use of known language items and features over the four skills of listening, speaking, reading, and writing, that is, becoming fluent with what is already known

Each strand should involve appropriate vocabulary activity.

Teaching and Authenticity

In a widely accepted model of the relationship between linguistic competence and communicative competence, Allwright (1979) proposed that communicative competence included linguistic competence plus other knowledge and skills. Allwright saw this applying to language teaching in the following way.

> ... teaching comprehensively for linguistic competence will necessarily leave a large area of communicative competence untouched, whereas

> teaching equally comprehensively for communicative competence will necessarily cater for all but a small part of linguistic competence. If this way of specifying the relationship is generally correct, then, if we really have communication as the major aim of our (language) teaching, we would be well advised to focus on communicative skills, in the knowledge that this will necessarily involve developing most areas of linguistic competence as an essential part of the product rather than focus on linguistic skills and risk failing to deal with a major part of whatever constitutes communicative competence.... we may conclude that if the "language teacher's" management activities are directed exclusively at involving the learners in solving communication problems in the target language, then language learning will take care of itself ...

This was often interpreted to mean that the means of language teaching should directly mirror the goals of language teaching. That is, learners should be exposed to unsimplified "authentic" material as early and as often as possible. Here "authentic" means that the material consists of instances of native speaker performance, such as newspapers, weather and news reports, conversation, and so on. This interpretation of "authentic" can be seen in materials and articles for language teaching (Porter and Roberts, 1982) and in present research focuses (Ellis, Tanaka and Yamazaki, 1994: Ross, Long and Yano, 1991).

The tradition in vocabulary studies has been to see pedagogy as involving a series of staged approximations. The classic example of this is Michael West's (1953) *New Method Readers* which systematically took learners from a vocabulary of 222 words to a vocabulary of well over 2000 words in carefully designed stages. Authenticity came not from the source or nature of the material but from the actions that learners performed on the material. That is, because the material was carefully controlled, the learners were able to read in much the same way as a native speaker would read. The material was not authentic but the learners' reading was authentic (Widdowson, 1976). This meaning of **authenticity** parallels the way the term **validity** is used in testing. Validity does not come from the test itself but from the match between the test and the use to which it is put.

Vocabulary studies took this approach because the message from frequency studies of vocabulary was so compelling. All words are not equal in their usefulness for a language learner, and thus the best return for learning effort comes from focusing on the high frequency words of the language. This is one message that still has had little systematic impact on mainstream teaching and course design. Studies of modern

textbooks reveal that the considerable information that is available on word frequency and the frequency of grammatical constructions is not being used in course design. The *COBUILD* materials offer some hope in this area.

We can still see resistance to the idea of simplification in research comparing the effects of negotiation, elaboration and simplification in providing comprehensible input (Ellis, Tanaka and Yamazaki, 1994; Yano, Long and Ross, 1994). These means of gaining access to a message are treated as if they were opposed to each other rather than a range of complementary possibilities to draw on.

It is likely that the meaning of **authenticity** differs across the four strands of a course, with for example, the requirements for an authentic fluency development activity differing from the requirements for an authentic meaning focused input activity.

Another area where vocabulary studies have failed to have an impact on course design and lesson design is in the choice of form and meaning relationships among items introduced at the same time. The classic piece of research in this area is Higa's (1963) study of the interference effects of items in word lists. This piece of research however represented the application to second language learning of an earlier tradition of paired associate memory research by experimental psychologists like Postman and Underwood. Paired associate learning in foreign language learning terms involves relating a foreign language word to its first language translation. So a Japanese learner of English would learn that **postcard** in English means "hagaki" in Japanese. This research shows very clearly that items that have similarities of spelling or pronunciation, or similarities of meaning such as near synonyms, opposites, and free associates interfere with each other if they are studied at the same time. This means that teaching **young** and **old** together, or **prevent** and **protect**, or the days of the week, or numbers together makes learning much more difficult. These findings have recently been extended in research by Tinkham (1993), which has been replicated in studies yet to appear by Waring and by Tinkham. Tinkham looked at the effect of learning items in lexical sets together. He defined a lexical set as a group of words that could come under the same superordinate. That is, **banana**, **apple**, **plum** are members of a lexical set because they can all come under the superordinate **fruit**. Similarly, **jacket**, **shirt**, **trousers** are members of a lexical set, **clothing**. Tinkham found that items in a lexical set were more difficult to learn together than a set of unrelated items.

The attractiveness of putting related items together in a lesson is that it seems that these related items appear to be stored together or at least connected in our brain.

Evidence for this comes from studies of verbal association and memory recall. This organized system of associations may be a goal of learning but it is not an effective means of initial learning. Once again we need to see learning as an appropriately staged sequence of approximations to the goal. Making the end become the means makes learning more difficult.

There are ways of minimising the problems of interference between related items. Some ways may be more feasible than others.

1. The related items are presented at widely separated times.
2. Some items are pre-taught before they are met with others in a set.
3. When related items are met together, one of the members of a set is focused on and the others are passed over quickly.
4. When related items are met, each item is treated quite differently from the others, using different linguistic contexts, different colours in visual presentation, and different activities to practise them.
5. Mnemonic devices are used to stop the items being confused with each other.

It is useful to bring previously taught words together in sets to highlight distinctions, but it causes interference if new words are presented in this way.

Units of Analysis in Curriculum Design

The term "units of analysis" is taken from Long and Crookes (1993). It is used to refer to items that are the learning focus of a lesson and that are used to determine the content and sequence of a series of lessons. How does a particular language course progress from one lesson to another? Is the progression based on tasks, topics, language functions, grammatical items or vocabulary? Let us just consider the grammar/vocabulary distinction here, although the tasks/vocabulary distinction is also an interesting one.

The vocabulary tradition that most concerns the grammar/vocabulary distinction is corpus linguistics. Sinclair (1991) pointed out that there was an important distinction in the analysis of items in a text between the open-choice principle and the idiom principle. The open-choice principle sees a construction as consisting of a series of slots with virtually any word likely to appear in a slot. The attractiveness of this principle is that it gives emphasis to the creative power of language and to the value of controlling a set of very productive grammatical patterns.

The idiom principle sees the language user as having "available ... a large number of semi-preconstructed phrases that constitute single choices, even though they might appear to be analysable into segments" (p. 110). The semi-preconstructed phrases consist of units where the choice of units is strongly determined by other units within the phrase. The operation of the idiom principle gives emphasis to probability (a major consideration in frequency-based corpus linguistics studies) and to the connections that vocabulary items have with each other. This is often called the study of collocation. Sinclair (1991) sees the idiom principle as the dominant principle in the analysis of text. Part of its power is that it provides an explanation of some of the striking features observed in the analysis of text, namely that "there is a broad general tendency for frequent words, or frequent senses of words, to have less of a clear and independent meaning than less frequent words or senses" (p. 113), and that the choice of a particular word in a text largely determines the occurrence of other related words in that text. Sinclair sees the operation of the idiom principle as resulting in a "delexicalization" of particular individual words and thus the unit of analysis often being more properly the phrase. The attractiveness of the idiom principle is that it focuses attention on vocabulary and collocation rather than more abstract patterns, and the largely preconstructed nature of these phrases makes fluency development in language use a more realizable goal.

Corpus analysis work indicates that the language-based unit of analysis in curriculum design and language teaching should be words and phrases rather than grammatical patterns. The influence of this idea is appearing in teaching and course design but is still limited by our lack of understanding of how collocation should be dealt with in a language course. This will be less of a problem as the connections between corpus linguistics and language teaching are more closely explored (Kennedy, 1992).

The Role of Language-focused Learning

Language-focused learning involves the teacher or learner giving explicit attention to features of the language system. This may involve, for example, concentrating on pronunciation or spelling, deliberately learning vocabulary using word cards, having one's grammar corrected, or being taught discourse strategies. There is increasing evidence (Ellis, 1990; Long, 1988) that courses containing some language-focused learning have advantages over courses that exclude it. Its benefits include speeding the rate of learning (Larsen-Freeman & Long, 1991), overcoming fossilization, and increasing the effectiveness of teaching.

The critical issue in language-focused learning is how such learning contributes to the implicit knowledge that is essential for normal language use. This involves the sub-issues of the relationship between explicit knowledge and implicit knowledge (the indirect effect of language-focused learning), and the conditions determining whether language-focused learning can directly add to implicit knowledge (the direct effect). I wish to focus on the direct effect, although I feel sure that the non-interface position (Ellis, 1990) on the relationship between explicit and implicit knowledge is much less tenable for vocabulary than it is for grammar.

Pienemann's (1985) teachability hypothesis distinguishes language items whose learning involves a developmental sequence from those that are simpler and whose learning does not involve such a sequence. Piaget's (Clark, 1973) classic work on the first language learning of the concept of the word **brother** shows us that developmental sequences may occur in vocabulary learning as well as in the learning of grammar. It is much more likely however that the great majority of vocabulary items for learners of English as a second language will not involve a developmental sequence and will thus potentially be able to directly enter implicit knowledge as a result of language-focused learning. This should not be interpreted as meaning that vocabulary items in implicit knowledge do not require further enrichment or conceptual development. It simply means that most vocabulary teaching and learning will not be constrained by a complex developmental sequence, and thus there is a place for substantial language focused learning of vocabulary.

We have looked briefly at the focus of teaching, units of analysis, and the role of language-focused learning. These indicate that vocabulary should be getting much greater attention in language curriculum design and in language teaching and learning. This greater attention should be the result of a rethinking of the role that vocabulary plays in language knowledge and use. It is not a battle between vocabulary, grammar and functions for the same piece of ground, but rather a reconsideration of how all these essential elements fit together in ways that result in better language teaching and learning.

It is clear from the corpus studies that there needs to be reconsideration of the nature of paired associate learning. If an important unit of analysis in curriculum design is the phrase, then paired associate learning needs to take account of this. The enormous amount of research on paired associate learning provides important guidelines for such learning. These need to be communicated to learners and they need to be trained in their application. In a recent, as yet unpublished study, Moir (1996) examined the vocabulary learning behaviours of ten adult learners of English.

They were all committed, conscientious, hard-working learners of English who spent several hours a week outside class working on vocabulary. Moir (1996) found that only one showed a high level of responsibility for his learning and an awareness of what was involved in learning vocabulary.

The less effective learners:

1. spent more time on vocabulary learning outside class than the effective learner
2. selected the words to learn from class texts rather than from a range of sources of interest and value to them
3. selected words simply because they were unknown rather than considering frequency, area of specialisation (i.e., academic or non-academic vocabulary), personal goals, or previous meetings with the words
4. were aware that the words they selected were of limited use to them
5. focused on the meaning of the words in copied sentences rather than also exploring the range of collocations and uses, and creating their own sentences
6. used rote learning rather than strategies they were taught, such as the keyword strategy, word cards, and trying to use the words in conversation
7. limited their learning to the short-term goals of the weekly test rather than focusing on their long-term goals
8. did not revise the words any more after the test
9. knew that they were not learning efficiently but did not alter their selection of words or learning procedures
10. did not feel very satisfied with their vocabulary learning
11. did not retain many of the words they studied

Moir saw the causes of the poor approaches to vocabulary learning as follows:

1. A poor awareness of what is involved in learning a language
2. Limited control of language learning strategies
3. Trying to meet the perceived expectations of the teacher
4. The influence of the weekly tests
5. The carry-over of perceptions, expectations, and strategies from previous learning experience

Moir concluded that learners should develop a strong meta-cognitive understanding of the nature and purpose of the learning task, an awareness of the appropriate strategy options, and a clear understanding of their individual needs.

Let us now turn finally to language testing and the contributions of vocabulary testing.

Language Testing

There has been a tradition of published studies on testing vocabulary size beginning from the end of the last century (Kirkpatrick, 1891). These studies continue today (D'Anna, Zechmeister, and Hall, 1991). They differ considerably from most mainstream language testing in that they are focused on language items rather than the comprehension or production of messages, they unashamedly use discrete-point tests, and they tend to be for diagnostic or placement purposes rather than for proficiency assessment. Meara and Jones's (1987) published *Eurocentres' Vocabulary Size Test* is a striking example.

Studies of the *TOEFL* test have found the items focussing on vocabulary to be among the most efficient and consistent in the strength of their contribution to the measurement of proficiency as defined by the test as a whole (Henning, 1991). In some ways, it seems that the effectiveness of the vocabulary items in the *TOEFL* has almost been an embarrassment in that they do not fit well into a communicative approach to testing. The major criticisms have been on the basis of face validity rather than reliability, practicality or other kinds of validity.

The tradition in vocabulary testing has been to look at a part of the knowledge that underlies effective language use. When this tradition in testing is combined with the frequency information gained from corpus studies, then we have a very effective tool to guide the placement of learners and the provision of relevant language courses. For example, there are numerous reasons why learners of English as a second language might have difficulty in reading an academic text. They may be completely unfamiliar with the subject matter. They may have poor reading skills, perhaps also in their first language. They may have poor strategies in retaining or using what they comprehend, or they may have inadequate vocabulary knowledge. Each of these possible causes will require different learning programmes, and diagnostic testing and analysis is essential in deciding what to do.

The message from vocabulary testing is that language- and system-focused tests are an essential part of a teacher's tools, and they must not be discarded because they do not fit with the current orthodoxy.

Conclusion

Vocabulary studies focus on one part of language and demonstrate the benefits that can come from this narrow focus. The message that this has for the mainstream of second language research and teaching is that the values of this focus must be incorporated into current theory and research. This will necessarily involve a change in both directions. Vocabulary research and teaching need to change their view of the nature of vocabulary to take account of the largely inseparable nature of vocabulary and grammar. This has far-reaching implications for the nature of vocabulary control in graded readers and course books, the units of analysis in curriculum design, and the units of language focused learning.

Mainstream research, theory, and teaching need to incorporate the findings of the traditional areas of vocabulary research, to recognise the value of vocabulary control, examine the interference effects of associative groupings of vocabulary, give appropriate attention to language focused learning and learner training in variants of paired associate learning, recognise the value of discrete point testing, and above all recognise the central role that vocabulary plays in language learning and use.

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APPENDIX 1 - Four Areas of Research

	Mainstream focus	Vocabulary focus	Teaching implications
Teaching and authenticity	Native-speaker material	Staged controlled input	More attention should be given to control and sequencing and authentically performed tasks.
Units of analysis	Grammatical patterns	Lexical and lexicalised phrases	Course designers must see vocabulary as a major controlling element in course design.
Language-focused learning	Communicative interaction	Direct teaching and study of vocabulary	Teachers need to recognise the four strands and give each its proper place. Learners need to be trained to manage language focused learning and connect it with the other strands.
Testing	Proficiency assessment	Diagnostic and placement assessment	If we are really concerned with matching learners to appropriate learning we need to give emphasis to diagnostic tests.