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ABSTRACT

Beyond the first several thousand most commonly used words in a language, direct vocabulary instruction is not efficient. Use of inferential skills then becomes the most effective way of learning new vocabulary; it is the way native speakers build their 60,000 word vocabularies. Because the skill is not automatically transferable, it must be systematically taught to students of foreign languages. This task is best accomplished with a good classification scheme for context clues. An improved classification system that uses grammatical as well as semantic clues and that stresses both structural and semantic dimensions has been developed. It consists of four overall categories: direct-explanation, overall-context, trans-sentence, and intra-sentence clues. For each of the last two categories there are two dimensions, structural and semantic. The scheme can be useful for native English speakers, learners of English, and learners of other foreign languages. Five tables display each category, including definitions, examples, and illustrative sentences. (MSE)

9

Building Reading Vocabulary through Inference: A Better Classification of Context Clues

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While speaking with second language learners, we are likely to conclude that their most urgent need is intensive oral practice. They lack control of the lexicon that is essential for fluency, they misuse and mispronounce words, and they frequently find themselves groping for the exact words needed to express their thoughts, even after years of study. But it is in the act of reading that the second language learner's small vocabulary becomes most problematic. At the survival level, students' productive vocabulary need not be as great as their receptive vocabulary. International students, for example, can make themselves understood in speaking and writing English—even if imperfectly and laboriously—with a relatively small vocabulary, perhaps as few as two or three thousand words. Without a much larger receptive vocabulary, however, they cannot understand very much of what native speakers say or write because native speakers regularly use words far beyond the students' limited lexicon. Without a larger receptive vocabulary, communication will be one-way; students will be able to give messages but not receive them.

Between the two receptive skills, a large vocabulary is less critical in listening, at least to normal conversations, than in reading. Native English speakers generally use a smaller vocabulary in speaking than in writing; in casual conversation the average native speaker probably uses a vocabulary of only around 2240 words (Mackey, 18). Reading requires a much larger vocabulary. According to Paulston and Bruder (21) students have

been right when they have complained about not knowing enough wo ds; it is poor vocabulary that most interferes with students' reading. A student who knows 3000 selected English words will find that he or she does not know at least 10 to 20 percent of the words in unsimplified text, and the same learner reading a mass-market paperback book would find between 35 and 70 unknown words on each page (Honeyfield, 12). It is no wonder that students become discouraged when they encounter unsimplified prose!

The problem, then, is how to help stu[illegible]quire the vocabulary they need to read unsimplified prose without fr[illegible]ion. How can this be done? Part of the solution lies in direct vocabulary instruction. The procedure followed in direct vocabulary instruction is to select the most frequent and useful words in the target language and then to devise activities and exercises that will help students learn these words. Direct instruction takes a giant step toward giving students an adequate vocabulary. Students who learn the 3000 most frequently used words will not know 10 to 20 percent of the words in unsimplified text, but they will know a remarkable 80 to 90 percent After learning just 3000 of the 800,000 or so English words, international students know fully 80 to 90 percent of the words encountered in prose used by newspapers and popular magazines.

After the first 3000 English words, direct vocabulary instruction is, unfortunately, much less effective, so we can assume that the same is true for any other language that we are teaching. If international students learn the next 5000 most frequent words, they will be able to recognize only an additional 6 to 11 percent of written prose, perhaps around 95 percent altogether (Twaddell, 26). They would still be confronted by at least 15 unknown words per mass-paperback page, and probably considerably more for many books, especially college-level textbooks. Nevertheless, it may be worthwhile to provide direct instruction in these 5000 additional words, for the gains may outweigh the time and effort expended. But beyond this point, direct instruction becomes flagrantly inefficient, for the majority of words that remain unknown on each page are very low frequency words and are far too numerous to teach directly.

Let us explore the options that a reader has when an unknown word is encountered What are the possible ways of coping with it? The reader has basically six options

1 Ask someone the meaning.
2 Find a definition in a dictionary.
3 Guess at the word's meaning if it is a cognate.
4. Try to determine its meaning by analyzing prefixes, roots, and suffixes.
5. Continue reading without determining the meaning of the word.
6 Try to draw inferences about the word from the surrounding context (Twaddell, 26).

The first five options are easy to eliminate because they are not sufficiently productive. The first one tends to make the reader dependent on others, not independent, and there is seldom an expert around when the student is studying and needs help. The second option is greatly overused; it is time-consuming and tedious The third is unreliable; what appears to be a cognate is often not. The fourth option, word analysis, is fruitful only infrequently and is sometimes misleading. The fifth option, simply to ignore the word, might actually be appropriate at times, since it is possible to understand an entire passage without understanding every word in it, but this is not very satisfying to conscientious students.

This leaves the sixth option—inferring the meaning of the word from context This is the option that teachers should urge their students to follow first. It is the only feasible option that will help them expand their reading vocabulary to any great extent. This is the way native speakers build their 60,000-word vocabularies--by making sensible guesses about unfamiliar words Unfortunately, they do not automatically transfer this skill to the learning of a second language If we tell them to guess, we find that they simply do not know how They must be systematically taught the skill of drawing inferences about unknown words and this teaching must be done so as not to create a seemingly impossible task To be efficient and effective, we need to employ a good classification scheme of "context clues"

Developing a New Classification Scheme

Researchers interested in teaching students to be better readers in English have devoted much effort to developing context clue classification schemes The authors have critically evaluated 21 such schemes and found all of them to be seriously flawed.[1] Most are unsatisfactory because they

fail to include important clue categories. Some do not merely omit a few categories, they omit entire classes of important categories. They are like a zoological taxonomy that fails to include the entire class of mammals or the entire class of fishes.

Existing classifications of context clues, for example, fail to catalog completely a very important class of clues that could be labeled "grammatical clues." The vast majority of categories in present classification schemes deal with semantic relationships rather than grammatical relationships among words in a sentence. Such categories as comparison, contrast, definition, example, and restatement are categories that focus on semantic relationships between the unknown word and the context. Yet it is possible to imagine an alternative approach to classification that would stress grammatical constituents (prepositional phrases, subjects, verbs, objects, adverbial phrases, conjunctions, and so on), indicating grammatical, not semantic, structural relationships between the unknown word and the context The following sentence points out the distinction between these two classification approaches. "I wouldn't want to be either very *wealthy* or very poor." Most present classifications, taking a semantic approach, would say that this sentence contains a context clue. The contrast clue consists of the semantic relationship of contrast that exists between *wealthy* and *poor*. Yet a grammatical-constituent approach is also possible. one could say that the sentence contains a conjunctive-constituent clue, which consists of the conjunctive *either . . or* together with the two adjective phrases that it conjoins. The syntactic function of the conjunctive *either . . or* is to set up a disjunction between the two adjective phrases. The function of the intensifying adverb *very* in the two adjective phrases is to establish that the two adjectives, the two poles in the disjunction, are in fact two opposite extremes. In this way, the grammatical relationships among these words bring the reader to the conclusion that the first, unknown, adjective phrase (*very wealthy*) must be the direct opposite of the second, known, adjective phrase (*very poor*) According to the grammatical approach, then, it is grammatical relationships that lead the reader to infer the correct definition of the unknown word

Given the importance of grammatical clues, the failure of most existing schemes to include any grammatical clues at all, and the failure of all to list grammatical clues in any detail, is unacceptable All existing schemes have proved to be incomplete in their omission of this entire class of important context clues

A second serious weakness of present classifications is their failure to provide a sensible framework for organizing context clue categories. They merely provide an unorganized list of clues that is quite difficult to learn and use As a remedy for this weakness, we propose the following framework on which to organize our new classification scheme. It may be considerably easier to learn, and it will preclude the omission of any important category of context clues.

I	Direct-Explanation Clues	
II.	Overall-Context Clues	
III	Trans-Sentence Clues Structural Dimension (Rhetorical-Device Dimension)	Trans-Sentence Clues Semantic Dimension (Rhetorical-Relationship Dimension)
IV.	Intra-Sentence Clues Structural Dimension (Grammatical-Constituent Dimension)	Intra-Sentence Clues. Semantic Dimension (Sentence-Meaning Dimension)

The third, and, perhaps, most serious weakness of present classifications is their failure to give proper stress to the two structural dimensions. Our classification scheme strongly emphasizes these dimensions Now that we have constructed a practical framework, the next step is to flesh it out. to specify the particular clue categories that belong in each of the four groups

Direct-Explanation Clues

The various categories of Direct-Explanation Clues, together with examples of each, are presented in Table 1. In the table, X is the term that the text seeks to define, and Y is the defining or clarifying word or phrase. Direct-Explanation Clues are the most important group of clues because they come the closest to giving dictionary definitions of words. Students should give these clues special attention

Table 1
Direct-Explanation Clues

Clue Category	*Illustrative Sentences*
A DEFINITION	
1 Direct Definition X is Y. X means Y.	By *listeners* is meant all the words a person knows well (Humes, 14, p. 328) A *tinal* is an evil spirit
2 Appositival Constructions	
a Simple Appositive X, Y,	The natives believed that *tinals*, evil spirits, lived beyond the river (Humes, 14, p. 329)
b *Or*-Appositive X, or Y	The natives believed that *tinals*, or evil spirits, lived beyond the river
c *That is*-Appositive X, that is, Y	The natives believed that *tinals*, that is, evil spirits, lived beyond the river
d Dash Appositives X—Y—	The natives believed that *tinals*—evil spirits—lived beyond the river
e *Which is* Appositive X, which is Y,	The natives believed that *tinals*, which are evil spirits, lived beyond the river
f Parentheses X(Y)	The natives believed that *tinals* (evil spirits) lived beyond the river
3 Footnotes X° (at bottom of page)°Y	The natives believed that *tinals*° lived beyond the river (at bottom of page) °evil spirits
B EXAMPLE	
X, like Y	Some scientists study *drieps* like height and weight (Humes, 14, p. 331)
X, such as Y	In Kansas live many *rodents*, such as mice and prairie dogs
X, for example, Y	Girls on the average consistently do better in the test items involving *esthetic response*, for example, matching colors and shapes and discriminating objects in pictures (Deighton, 8, p. 7)
X, e.g., Y	*Rhetorical relationships* between sentences, for example, contrasts, restatements, and cause-effect relationships, can be useful context clues
X (e.g., Y)	
X, as in Y	

Overall-Context Clues

Overall-Context Clues differ greatly depending on the subject matter of the text For works of fiction, Overall-Context Clues include mood and tone, setting, characterizations, and plot. In nonfiction works, the most useful Overall-Context Clues are the general topic of the text and the particular themes of the passage that contains the unknown word. General-topic clues can operate at a broad level. The typical unknown word in a chemistry text, for instance, is unlikely to mean "melodious" or "sonata," whereas these meanings might well fit unknown words in a music-history text The particular themes and controlling ideas of a passage establish a framework by which readers can interpret and understand the sentence-by-sentence details As readers use these themes to build expectations, they gain an edge in inferring the meanings of unknown words. Before this can happen, they must have some background knowledge of the subject area, of course

Trans-Sentence Clues

Rhetorical-Device Dimension

Writers use particular devices to achieve rhetorical coherence between sentences Students should learn to watch for these devices they usually signal a meaningful connection between sentences that can help them narrow the meaning of an unknown word According to Paulston and Bruder (21, p 168), coherence is achieved by the following devices

A Transition words, of which there are four kinds
   1 The same word repeated in the following sentence
   2 A synonym repeated in the following sentence
   3 Substitute and summary words such as *this, these, this idea, these three birds, that document, this kind of building, such a problem*
   4 Sentence connectives like *furthermore, however,* and *therefore*

B Parallel structures in different sentences

C Punctuation

Examples of these categories are presented in Table 2.

Rhetorical-Relationship Dimension

In principle there are thousands of different Rhetorical-Relationship Clues Table 3 represents an effort to highlight the most common and useful ones Note that the helpful neighboring sentence can come either before or after the sentence containing the unknown word.

There is a special connection between the 11 Rhetorical-Relationship categories and one of the Rhetorical-Device categories, specifically, the category of sentence connectives. These connectives signal the presence of particular rhetorical relationships. For instance, the sentence connectives *by contrast, conversely,* and *on the other hand* regularly signal the rhetorical relationship of contrast. (Mary is quite *industrious*. On the other hand, her brother is very lazy.) The connectives *as a result* and *consequently* always signal a cause-effect relationship. (The weather was very *blustery* Consequently, the children could not play outside.) It can be very profitable for students to learn which sentence connectives are associated with which rhetorical relationships A list of English common sentence connectives that signal each category of rhetorical relationship is presented in Table 4

Intra-Sentence Clues

Grammatical-Constituent Dimension

A sentence contains a series of (overlapping) grammatical constituents, each of which affects to some extent the range of potential meaning of an unknown word In listing those grammatical constituents that are most productive, we realize that a kind of grammatical analysis is involved, but we do not want students to get bogged down in a detailed, nitpicking grammatical analysis The classification scheme should help students infer word meanings as quickly as possible, and not compel them to become meticulous, punctilious sentence-parsers. With this in mind, we have formulated a list of constituents divided into several groups depending on the hierarchical level at which they operate· sentence level, clause level, noun phrase level, and miscellaneous. These categories with illustrative sentences are presented in Table 5

Table 2
Trans-Sentence Clues The Rhetorical-Device Dimension

Clue Category	*Illustrative Sentences*
A TRANSITION WORDS	
1 Same Word or Words Repeated	*Ossification* in the wrist for girls begins at eight months of age In the wrist each of the many small bones hardens in turn, with the wrist hardening complete in several years [The repetition of the word *wrist* enables the reader to isolate *hardening* as a synonym for *ossification* The repetition of forms of *harden* also helps] (Deighton, 8, p 7)
2 Synonyms Repeated	He told me to toss him the football The *pigskin*, however, was too slippery for me to throw [*Toss* and *throw* are the synonyms The first sentence talks about throwing a football, the second about throwing a pigskin So the pigskin must be the football]
3 Summary Words	Many American Indians grew *maize* This variety of corn provided the bulk of their diet [The summary phrase *this variety of corn* actually defines *maize* The word *this* signals the presence of the defining synonym]
4 Sentence Connectives	A second weakness of the League was that its sanctions were not *obligatory* upon the member states Hence, each nation was still free to act or not, depending upon the extent of its political or economic interest (Deighton, 8, p 8)
B PARALLEL STRUCTURES IN DIFFERENT SENTENCES	Dialogue gives sparkle and life, but it can be easily overdone Do not employ it for *trivialities* Do not use it for nonsense [The parallel structures *do not employ it for* and *do not use it for* suggest that *trivialities* and *nonsense* are synonyms of each other] (Deighton, 8, p 8)
C PUNCTUATION	He will certainly win, he has *trained* harder than anyone else

Table 3
Trans-Sentence Clues The Rhetorical-Relationship Dimension

Clue Category	*Illustrative Sentences*
1 RESTATEMENT B restates A in different words	The author has kept the picture of the wild colt on a purely *behavioristic plane* That is, she has described only its observable actions (Deighton, 8, p 8)
2 EXEMPLIFICATION* B is an example of A, or vice versa	Her family members are all fine *instrumentalists* Her brother, for instance, has played several violin solos with the Rochester Symphony
3 SUPPORTING EVIDENCE* B is supporting evidence for A, or vice versa	The U S tax system is *inequitable* Some people with a $60,000 income pay $20,000 in taxes while others with the same income pay no taxes at all!
4 ADDITION A and B should be considered together A and B share the same relationship to the topic sentence of the paragraph B adds something along the same line of thought as A	The bedsprings were old and sagging And the *mattress* was yellowed Blacks in the U S have poorer health than whites Black males are more than twice as likely to die before 40 than whites Moreover, the *infant mortality* rate for poor blacks is more than three times as high as for affluent whites
5 ALTERNATION A and B are alternate possibilities	On our vacation we could fly to Europe Or we could *travel* to Mexico
6 SIMILARITY A and B are similar	Susan was very *weary*. Karen, too, was tired after the day's hard work
7 CONTRAST A and B express contrasting ideas Or sometimes, B is contrary to the expectation raised by A	As a child, Barb was very quiet Her brother, on the other hand, was quite *voluble*
8 CAUSE-EFFECT A is the cause or reason for B, or vice versa	This assignment demanded courage far above the measure of most men Consequently, only the most *intrepid* were considered for the job (Dulin, 9, p 443)
9 SUMMARY B summarizes A	He had fought in two wars, had led many soldiers, and had planned the capture of three cities In short, he was a *seasoned* soldier
10 CHRONOLOGICAL ORDER A occurred before B, or B before A, or A and B occurred at the same time	We entered the restaurant and sat down at our table Very soon the waiter brought us the *menus*

Table 3 (continued)
Trans-Sentence Clues The Rhetorical-Relationship Dimension

Clue Category	*Illustrative Sentences*
11 SPATIAL ORDER A and B are related in location	The bedrooms are all on the second floor The living room and kitchen are on the first floor The playroom is in the *basement*

*One way to provide supporting evidence is certainly to provide examples (Exemplification, Category 2) Hence Category 2, Exemplification, and Category 3, Supporting Evidence, could very well be combined into a single category called Supporting Evidence However, the category of Exemplification is listed separately from the category Supporting Evidence because the rhetorical relationship of Exemplification is so common and so productive that it merits a category all to itself So Category 3, Supporting Evidence, refers to all *other* kinds of supporting evidence, such as reasons why an assertion is true, supporting statistical evidence and so on

Table 4
Rhetorical Relationships and Common Sentence Connectives

Rhetorical Relationship	*Sentence Connectives That Commonly Signal the Presence of Each Rhetorical Relationship*
Restatement	in other words, that is, that is to say I mean
Exemplification	for example, for instance, to illustrate
Supporting Evidence	specifically for one thing, first, second, finally
Addition	furthermore in addition, besides, moreover, and, also
Alternation	or, alternately, alternatively, instead, or else
Similarity	similarly likewise, equally, in the same way, in a like manner
Contrast	but, despite this, yet, however, still, nonetheless, nevertheless, instead by contrast, in contrast, conversely, on the other hand
Cause-Effect	as a result, thus, consequently, therefore, because of this so, hence for accordingly
Summary	to sum up, in sum in summary, in conclusion, in short, in a word, to put it briefly, on the whole, all in all
Chronological Order	afterwards, then, subsequently suddenly, later, now, first, second third, after a short time, as soon as , at length, immediately, at the same time, earlier, before, in the meantime
Spatial Order	on one side on the other side above below, in the distance

Table 5
Intra-Sentence Clues The Grammatical-Constituent Dimension

Clue Category	*Illustrative Sentences*
A SENTENCE LEVEL	
1 Main Clauses	She felt really bored with him because his conversation was totally *vapid* [The main clause gives a hint to the meaning of the word *vapid* in the subordinate clause]
2 Subordinate Adverbial Clause	When Julie found out that she had won the music scholarship, she was *elated* [The subordinate clause clarifies the meaning of the word *elated* in the main clause]
B CLAUSE LEVEL	
1 Subject Phrases	Large amounts of *zoarp* are mined in Idaho [*Zoarp* must be something that can be mined, thus a mineral] (Humes, 14, p 333)
2 Verb Phrases	The young man's voice *fappered* constantly [*Fappering* must be an action that a young man's voice can perform, it must refer to some sound] (Humes, 14, p 333)
3 Object Phrases	Ms White *perused* the book carefully [*Perusing* must be an action that a woman (subject-phrase clue) can do to a book (object-phrase clue) carefully (adverbial-of-manner clue)]
4 Adverbials of Place	We *moored* the boat to the dock [*Mooring* must be something one does to a boat in connection to a dock, which is the place clue Thus, *moored* probably means "tied "]
5 Adverbials of Manner	The bell *pealed* loudly [Without the adverb *loudly*, *pealed* could mean "rang," "disappeared," "decayed," and so on With the adverb, the potential meanings of *pealed* are constrained to some kind of sound, probably a ringing sound]
6 Adverbials of Time	The overseas phone rates are *prohibitive* during the midday [*Prohibitive* must have something to do with expensive phone rates, since readers know from experience that phone rates are highest during the daytime]

Table 5 (continued)
Intra-Sentence Clues The Grammatical-Constituent Dimension

Clue Category	*Illustrative Sentences*
C NOUN PHRASE LEVEL	
1 Noun	He turned to his favorite *passage* in the book [A *passage* must be some part of a book.]
2 Noun Modifiers	And you will show the same insensitivity, as you lie back in a *cushioned* armchair [*Cushioned* must refer to some quality that armchairs can have]
D MISCELLANEOUS	
1 Conjunctive Phrases	The wallpaper was so funny that I can only remember seeing yellow, *maroon*, and black [*Maroon* must be a color] (Humes, 14, p 330)
2 Prepositions	To avoid the storm, the plane flew above the *thunderheads* [The preposition *above* helps the reader guess that thunderheads are clouds]

Sentence-Meaning Dimension

There is probably no limit to the number of categories that might be included in this dimension; a particular sentence might express many different meanings. It is therefore necessary to limit these categories to a relatively small, manageable number Actually, any category in the Rhetorical-Relationship Dimension of Trans-Sentence Clues can also be a category in the Sentence-Meaning Dimension of Intra-Sentence Clues For instance, consider the rhetorical relationship of cause-effect in these two sentences·

> Traffic was very congested last year
> As a result, we left for the game an hour earlier this year

This same cause-effect relationship can ssed within a single sentence in various ways

> Since traffic was very congested last year, we left for the game an hour earlier this year

By similarly combining the two sentences in the illustrations in each category (Table 5), one can see that each of the 11 categories in the Rhetorical-Relationship Dimension is also a category in the Sentence-Meaning Dimension. In fact, it makes sense to limit the sentence-meaning categories to precisely these same productive 11 categories. Having the same list of semantic categories for both Trans-Sentence and Intra-Sentence clues makes the classification scheme much easier to remember than would having two different lists.

A careful study of the Intra-Sentence Clues will show that the semantic dimension is far less important than the structural dimension. The most helpful clues are almost always Grammatical-Constituent clues.

Assessment of the New Classification Scheme

Now that we have presented the new classification scheme, how does it fare under critical evaluation? We asked the following questions while evaluating other classification schemes, so it seems only fair to ask the same questions now

1 *Is it complete?* The scheme should be relatively complete, having attempted to correct previous schemes' deficiencies in this regard. It tries to strike a balance between listing every conceivable clue and keeping the scheme relatively short and manageable.
2 *Is it productive?* The categories within the scheme should all be productive ones; some are more productive than others and thus should be the first ones taught to students.
3 *Is it consistent?* The scheme is much more consistent than previous schemes. It has attempted to resolve previous schemes' inconsistencies by separating the Trans-Sentence and Intra-Sentence clues into a structural dimension and a semantic dimension.
4 *Is it easy to learn?* The scheme should be, on the whole, easy to learn. If it seems rather long, at least the categories are grouped into sensible, meaningful patterns that should facilitate learning. More important, most ESL/EFL students will not have to learn anything new. Almost all the clue categories are identical to language categories that students have already learned in their basic reading and writing classes (although some writing classes may not have taught all 11 rhetorical relationships).

5 *Does it reinforce normal reading skills?* The classification scheme passes this criterion admirably. Readers should be using Overall-Context Clues at all times, whether or not they are inferring unknown word meanings, in order to build expectations by which the text can be interpreted. And of course, readers have to pay attention to grammatical constituents in normal reading; they obviously cannot comprehend a sentence without being aware of which elements are agents, verbs, objects of actions, modifiers, and so on.

We believe that the classification scheme developed here fares well under critical inspection. This does not imply that it is perfect, but it is unquestionably an improvement over previous schemes. The form presented here should be useful for native English speakers, learner of English, and—because the clues translate so easily—students of a foreign language (especially the most commonly taught Western languages). This system can help students increase their reading vocabulary and help them understand better what they read.

Notes

1 The 21 classification schemes reviewed are the following: Ames, 2, Artley, 3, Burns and Schell, 4, Bush and Huebner, 5, Dale and O'Rourke, 7, Deighton, 8, Dulin, 9, Durkin, 10, Harris, 11, Hook, 13, Himes, 14, Ives et al., 15, Johnson and Pearson, 16, Kruse, 17, McCullough, 19, McIntyre, 20, Seibert, 22, Spache and Berg, 23, Sternberg and Powell, 24, Thomas and Robinson, 25, Vacca, 27.

References

1 Allen, Virginia F. *Techniques in Teaching Vocabulary*. New York: Oxford, 1983.
2 Ames, Wilbur S. "The Development of a Classification Scheme of Contextual Aids." *Reading Research Quarterly*, 2 (1966): 57–82.
3 Artley, A. Sterl. "Teaching Word-Meaning Through Context." *Elementary English Review*, 10 (1943): 68–74.
4 Burns, Paul C., and Leo M. Schell. "Instructional Strategies for Teaching Usage of Context Clues." *Reading World*, 15 (1975): 89–96.
5 Bush, Clifford L., and Mildred H. Huebner. *Strategies for Reading in the Elementary School*. New York: Macmillan, 1970.
6 Clarke, D. F., and I. S. P. Nation. "Guessing the Meaning of Words from Context: Strategy and Techniques." *System*, 8 (1980).
7 Dale, Edgar, and Joseph O'Rourke. *Techniques of Teaching Vocabulary*. Addison, IL: Field Educational Publications, 1971.
8 Deighton, Lee C. *Vocabulary Development in the Classroom*. New York: Teachers College Press, 1959.

9 Dulin Kenneth La Marr "Using Context Clues in Word Recognition and Comprehension" *The Reading Teacher*, 23 (1970), pp 440–445
10 Durkin, Dolores *Teaching Them to Read* 2nd ed Boston Allyn and Bacon, 1974
11 Harris, Albert J *How to Increase Reading Ability* 5th ed New York David McKay, 1970
12 Honeyfield, John "Word Frequency and the Importance of Context in Vocabulary Learning" *RELC Journal* 8, 2 (1977)
13 Hook, J N *The Teaching of High School English* 3rd ed New York Ronald Press, 1965
14 Humes, Ann "Structures, Signals and Cognitive Processes in Context Clues" *Research in the Teaching of English* 12 (1978) 321–334
15 Ives, Josephine P , Laura Z Bursuk, and Sumner A Ives *Word Identification Techniques* Chicago Rand McNally College Publishing, 1979
16 Johnson, Dale D , and P David Pearson *Teaching Reading Vocabulary* New York Holt, Rinehart and Winston, 1978
17 Kruse, Anna Fisher "Vocabulary in Context" *English Language Teaching Journal* 33 (1979) 207–213
18 Mackey, William Francis *Language Teaching Analysis* London Longman, 1965
19 McCullough, Constance M "Learning to Use Context Clues" *Elementary English Review* 20 (1943) 140–143
20 McIntyre, Virgie M *Reading Strategies and Enrichment Activities for Grades 4–9* Columbus, OH Charles E Merrill, 1977
21 Paulston, Christina Bratt, and Mary Newton Bruder *Teaching English as a Second Language Techniques and Procedures* Boston Little, Brown and Company, 1976
22 Seibert, Louis C "A Study on the Practice of Guessing Word Meanings from a Context" *Modern Language Journal* 29 (1945) 296–322
23 Spache, George D , and Paul C Berg *The Art of Efficient Reading* New York Macmillan, 1955
24 Sternberg, Robert J , and Janet S Powell "Comprehending Verbal Comprehension" *American Psychologist* 38 (1983) 878–893
25 Thomas, Ellen Lamar, and H Alan Robinson *Improving Reading in Every Class* 2nd ed Boston Allyn and Bacon, 1977
26 Twaddell, Freeman "Vocabulary Expansion in the TESOL Classroom," pp 439–457 in Kenneth Croft, ed *Readings on English as a Second Language*, 2nd ed Cambridge, MA Winthrop, 1980
27 Vacca Richard T *Content Area Reading* Boston Little, Brown and Company, 1981