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CONSTRUCTING WORD MEANINGS: INDEPENDENT STRATEGIES AND LEARNING OPPORTUNITIES OF MIDDLE SCHOOL STUDENTS IN A LITERATURE-BASED READING PROGRAM

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By


The Ohio State University 1996

Dissertation Committee:
Professor Karin Dahl, Adviser
Professor Janet Hickman
Professor Gay Su Pinnell
Professor Theresa Rogers

Approved by
Karin S. Dahl
Adviser

College of Education
ABSTRACT

The purpose of this study was to explore the ways middle school children construct word meanings as they engage in self-sponsored reading events within a literature-based environment. Another focus included an investigation of teacher and student actions within different class settings involving vocabulary teaching and learning. One literature-based reading teacher and two seventh-grade classes were the participants. As an ethnographic investigation, qualitative methodological procedures were used to collect and analyze data over a six-month period. These procedures involved multiple data sources, including interviews, questionnaires, observations, conferences, and self reports.

Six focal learners across both classes served as informants about personal word meaning constructions during independent silent reading. After conducting individual case study analyses, cross case analyses unveiled similarities and differences in procedural and conditional knowledge bases used by students as they confronted unfamiliar words. Findings indicate that focal learners used multiple strategies in single encounters with
unfamiliar words. They were not inhibited by inaccurate word meaning constructions as long as meanings made sense within passages. All learners focused on key words and phrases as they explored content for word meaning clues. In addition, content analysis at the passage level occurred more often before targeted words than after them. Learners seldom explored both directions for one word. In general, their schematic connections remained text-bound. Furthermore, syntax proved to be a significant cueing system, since learners frequently generated syntactically correct synonyms and phrases to explain their word meaning constructions regardless of accuracy.

The configuration of this literature-based program supported vocabulary teaching and learning. It encompassed a variety of important events where the teacher offered clarification about words and learners practiced their repertoire of independent word learning strategies. Learners took their cues from the teacher when they assumed the role of vocabulary enricher during book discussion groups. They emulated her word-defining techniques and adapted "teacher as director" stances and "teacher as facilitator" stances when they initiated word learning opportunities for the groups. More collaboration among group members occurred when vocabulary enrichers acted as facilitators. In sum, learners' perceptions of teacher actions were an important aspect of vocabulary learning.
In loving memory

of my parents

Nelton and Mildred Desormeaux
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VITA

September 23, 1950 ... Born—San Antonio, Texas

1971 ................... B.A., University of Southwestern Louisiana


1974 ................... M.Ed., University of Southwestern Louisiana

1976 ................... Ed.Specialist Degree University of Southwestern Louisiana

1993-1994 ........ Instructor Muskingum College, New Concord, Ohio

1994-1995 ........ Teaching assistant The Ohio State University, Columbus, Ohio

1995-1996 ........ Instructor University of Texas at San Antonio, San Antonio, Texas

PUBLICATIONS


FIELDS OF STUDY

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CHAPTER I
INTRODUCTION

Helping students improve their vocabularies, long a common concern of teachers, is based upon the widely accepted assumption that students who possess a wide vocabulary perform better in school than those with limited vocabularies. Educational research has consistently shown that a large vocabulary is usually associated with success in school and that word knowledge is one factor that highly correlates with scores on standardized tests and intelligence tests (Anderson & Nagy, 1992). The relationship between word knowledge and reading achievement is elusive and complex, but it remains an important area of concern in creating language and literacy programs for school-age youth.

Some proponents of vocabulary instruction consider general vocabulary knowledge to be "the single best predictor of how well that reader can understand text" (Nagy, 1988, p. 1). The number of difficult words in a text seems to strongly influence the reading difficulty of the text. Consequently, as the volume of knowledge in today's world burgeons at an ever-increasing pace, students with
limited vocabularies are at a disadvantage in terms of literacy growth. Even those students who know how to read but choose not to do so, the "aliterate school population," may be at risk of falling behind academically, possibly because they do not continue to acquire vocabulary through written discourse (Stanovich, 1992).

Vocabulary instruction cannot be ignored or its importance underestimated. The number of words learners must procure each year to keep abreast with curricular demands is overwhelming. Anderson and Nagy (1992) argue that the numbers are close to three thousand new words annually. Furthermore, vocabulary acquisition impacts the expressive and receptive areas of language development in totally different ways. A learner's understanding of a new word in a reading or listening situation is vastly different than what is linguistically expected for a speaking or writing task.

Although educators will agree that vocabulary knowledge is important and must be addressed, experts differ in their interpretations of what is known about vocabulary development and the implications that can be drawn from this body of knowledge. On one side of the coin there are those who accept the notion that a large measure of vocabulary growth occurs when avid, frequent readers learn new words incidentally from diversified readings (Baumann & Kameenui, 1991; Blachowicz & Lee, 1991; Nagy, 1988; White, Graves, &
Slater, 1990). Others believe that it is not enough to leave the attainment of vocabulary expansion to the chance occurrences of wide reading where students rely on their ability to use context clues and inferences to decipher meaning. The focus is placed on direct vocabulary instruction that will enable the learner to take an active role in making meaning and in developing independent problem-solving strategies (Buikema & Graves, 1993; Gauthier, 1991; Herman & Dole, 1988; Miller & Gildea, 1987). Although both groups put forward legitimate stances about vocabulary growth and development that are well-grounded in research, it may be that approaches which can bring these diverse views together could offer students a viable learning environment which promotes and increases vocabulary knowledge.

Recent interest in direct vocabulary instruction has diminished in response to changes in language arts curricula, such as literature-based innovations and whole language. However, the importance of vocabulary as a rich language source remains. How are students learning vocabulary and how are teachers teaching it within these new curricular frameworks? It is imperative that we take a close look at what is happening to vocabulary development in light of these innovations (Anderson & Nagy, 1992). Literature-based reading instruction has gained popularity and has been implemented at different grade levels in
schools throughout the United States. Because vocabulary growth, in terms of new words for unfamiliar concepts, expands rapidly as children approach the upper grades, it is necessary that middle school programs, especially the current literature-based instruction, give attention to this vital component of language learning. At this time, scant research is available about how and to what extent these innovative programs incorporate and enhance vocabulary development. Thus, there is an urgent need for research that examines the nature of vocabulary learning in literature-based programs based upon what is already known about effective vocabulary instruction.

As an important aspect of literacy growth at every level, vocabulary development cannot be overlooked or subsumed into an overarching perspective about comprehension. By the time children enter middle school, they are expected to have an emerging repertoire of independent word learning strategies that should serve them well as they encounter new words for new concepts. Yet, we have scant information about the procedures and conditions under which students activate specific strategies as they construct meanings for unfamiliar words in self-sponsored reading events. Such knowledge can hold implications for driving instructional plans to help students with limited vocabularies. Therefore, the primary purpose of this study was to document and examine the ways in which middle school
students construct word meanings during natural reading episodes. A secondary purpose was document and examine the ways in which a literature-based classroom environment influences independent word meaning constructions.

Any investigation into the ways in which middle school children develop substantial vocabularies within current literature-based reading programs must take into account the nature and varied dimensions of word meanings, the theoretical underpinnings of word meaning acquisition from a constructivist perspective, the complex relationship between vocabulary knowledge and reading comprehension, and the underlying theory of literature-based instruction. Therefore, a description of each component will serve as a basis for the research questions of this study.

The Nature of Word Meanings

The past efforts of psychologists, linguists, and educators to define a word and what it means to know a word have revealed the difficulty and futility of ascertaining one satisfying answer to each question (Baumann & Kameenui, 1991). The responses to these queries are as varied as the lenses through which theorists view vocabulary. From a psychological vantage point, Vygotsky's perspective (1992) enables us to consider the relationship of word meaning to thought and language. He asserts that "word meaning is a
phenomenon of thought only insofar as thought is embodied in speech, and of speech only insofar as speech is connected with thought and illuminated by it. It is a phenomenon of verbal thought, or meaningful speech—a union of word and thought." (p. 212) According to Vygotsky, word meanings are dynamic, not static, entities whose formations change with development and with the functions of thought. From his psychological stance, Vygotsky (1992) defines a word as "a microcosm of human consciousness" (p. 256) which implies that the construction of word meanings invariably influences our behavior and responses to the events in our lives (Baumann & Kameenui, 1991).

In line with Vygotsky's assertion that words and their meanings shape human behavior, others in the field view words from a cultural perspective. Words, as arbitrary configurations assigned to ideas, objects, and occurrences, hold meanings within specified cultural parameters. As these referential meanings become accepted by a culture, the word then becomes a vehicle for imparting knowledge within the culture as well as a representation of knowledge about the culture (Drum & Konopak, 1987).

Once word meanings are situated within the larger frame of cultural considerations, we can then sharpen our focus as we deliberate upon a more functional and precise definition of a word. Defined by some as lexical units (Miller & Gildea, 1987), words cannot be adequately described apart
from their meanings since it is this connection which gives words their function in communication, nor can they be described without reference to their semantic relatedness to other words (Nagy & Anderson, 1984). Words are elusive and capricious. They can take on varying meanings in oral or written discourse. As Labov (cited in Mason, Knisely, & Kendall, 1979, p. 51) states, "Words have often been called slippery customers and many scholars have been distressed by their tendency to shift their meanings and slide out from under any simple definition."

Anderson and Nagy (1991) also acknowledge this evasive nature of words and therefore prefer to define a word in terms of its semantic relatedness to other words. For example, knowing the word happy implies knowledge of its derivatives such as happiness, happily, and happier.

Furthermore, they argue that word meanings are complex entities that cannot be collapsed into a schema of narrow generalizations or a singular hierarchy of sequentially encompassing meanings. They shy away from general core meanings for words. Using the word give as an example, they contend that although the varying definitions are related in one sense, they do not exemplify a fixed core meaning. For instance, when give is defined as to set forth or to grant, the core meaning does not carry over to varying contexts.

If the sense of the different uses of the term (give) were identical, it would be possible to substitute the same synonym in each expression and preserve the meaning. However, you can say set forth a valid
argument, but you cannot, in any normal situation, say set forth a warm greeting; you can say grant him permission, but you cannot say grant him a shove.

Consequently, Anderson and Nagy prefer to characterize the relationship among the different senses of a word as that of family resemblance.

In a human family there is a greater or lesser degree of resemblance among the members. The nature of the resemblance shifts from member to member, without there necessarily being any one clear respect in which all are alike. The same is true of the meanings of most words in actual use. The features that are important shift from use to use. A feature that is essential in one use may be unimportant or absent in another. (p. 698)

Another way to examine word meanings is to consider different dimensions that help to explain the relationship between words and their meanings. Spiedel (1985) provides us with several important descriptions of these dimensions. For example, she asserts that the defining features of words and their related concepts are actually encompassed within fluid boundaries where some members of the conceptual family are situated more on the fringes than in the middle. To illustrate different members of the concept of fruit, Spiedel (1985) uses orange as an example of a word found in the middle because it contains the essential features of this concept, whereas the word tomato is more peripheral since it is less commonly considered as a member of the concept fruit. Yet both words embody the meanings we attach to the broader conceptual framework.
Another important dimension acknowledges the fact that word meanings evolve gradually over time. This feature is especially important in light of the emphasis we place on wide reading as a necessary component for vocabulary growth and development (Nagy, 1988). If, in fact, word meanings emerge in incremental fashion over time, then we must acknowledge that word meanings are dynamic formations that consequently elude definitive description. Word meanings continue to change even in adulthood (Speidel, 1985).

Word meanings are also characterized by the images words evoke in the language user. For example, words like cow and jump enable us to form clear images, whereas words such as love and kindness have little image evoking power. Furthermore, word meanings are a function of their linguistic contexts since differing situations call forth differing meanings and are also embedded within a semantic network of related concepts that make up a learner's word knowledge base. With this in mind, we must acknowledge the fact that learners will differ considerably in the quantity and quality of their vocabulary knowledge. Thus, what it means to know a word becomes an multifaceted issue grounded in varying perspectives of what constitutes a word and in different levels of word knowledge.
Acquisition of Word Meanings

The theoretical suppositions which undergird vocabulary acquisition encompass what we know about the kinds of vocabulary we need for reading (Chall, 1987), the importance of context as a major component fostering vocabulary growth (Sternberg, 1987; Nagy & Herman, 1987), and the ways in which prior knowledge of word meanings stimulates the cognitive processes used in the acquisition of new word meanings (Elshout-Mohr & van Daalen-Kapteijns, 1987). These components are the keys to successful vocabulary instructional programs that not only teach new words but also enhance students' independent word learning strategies.

Kinds of Vocabulary

Chall (1987) distinguishes between the development of recognition vocabularies and meaning vocabularies as a way to envision how children acquire word knowledge. In the primary grades recognition vocabulary is of great importance since children are concerned with identifying words in print. Thus, decoding and other word recognition strategies are emphasized as children learn to discern the printed forms of known words.

As children approach the middle grades and become more proficient in decoding and recognizing known words, a shift in vocabulary emphasis occurs. Around fourth grade,
vocabulary acquisition focuses more on meaning than recognition. From then on, children learn new words for known concepts and new words for new concepts in various content areas and in more sophisticated literature books. The need to develop a rich vocabulary base becomes even more urgent during the ensuing middle and secondary school years. Nagy and Anderson (1984) estimated that the average student at this age level must acquire approximately 3,000 new words yearly in order to stay current with each succeeding grade level. Many vocabulary experts assert that learning from context plays a significant part in the student's yearly acquisition of such a large volume of words.

Use of Context

Because the estimated numbers of words students acquire yearly defy what could possibly be learned through direct instruction alone, the use of context becomes a viable explanation as a matter of default. There is no other possible reason for how such large numbers of words can be assimilated by average students after the third grade. Although this incidental learning of new words through context is a plausible explanation for the large acquisition of vocabulary during the school-age years, there are those who are skeptical about the richness of natural contexts in providing enough support for learners to
construct accurate word meanings (Beck et al., 1983). Yet, others interested in vocabulary development counter with the notion that word learning is done in small increments over time as students engage in frequent wide reading. Regardless of whether children are acquiring new words and their meanings from direct instruction or incidentally in wide reading, the fact remains that context is a major component which drives the choices they make when selecting appropriate word learning strategies to construct meaning. The procedural knowledge and conditional knowledge students use to figure out new words as they read are situated within the specific context of the reading and are influenced by the social and personal interactions learners have with the text. Furthermore, such meaning constructions occur as learners use their knowledge of text cues and their existing knowledge of word meanings. At the present time we have scant information about the nature of such interactions involving independent word learning strategies.

Prior Knowledge

The background knowledge that students have about specific word meanings and about words in general has a significant impact upon how they interact with unfamiliar words during reading (Curtis, 1987; Eishout-Mohr & van Daalen-Kapteijns, 1987; Nagy & Scott, 1990; Speidel, 1985). Their word schemas are activated in much the same way that
other schemas are as learners engage in reading. In their studies about verbal comprehension, Eishout-Mohr and van Daalen-Kapteijns (1987) concluded that highly verbal readers possess large numbers of quality word meaning units. This knowledge of word meanings is also easily retrieved as learners interact with the words in a variety of contextual situations. Furthermore, Eishout-Mohr and Daalen-Kapteijns suggested that word acquisition processes include selecting a key word or model from the context as a pivot for word exploration, decontextualizing the emerging word meaning for the unfamiliar terms, and then articulating a definition for the word. To develop a substantial word knowledge base, learners must engage in frequent interactions where these cognitive processes are used. They must also be exposed to a variety of challenging contextual situations where they determine which procedures to activate as they check word meaning knowledge for themselves.

Vocabulary Knowledge and Reading Comprehension

Teachers and researchers have always known that children who know many words are more likely to be proficient readers than those with limited vocabularies. Educational research has consistently documented this finding in addition to the positive correlation between vocabulary knowledge and aptitude as measured by
standardized achievement tests (Anderson & Nagy, 1992; Nagy, 1988). As a result, most teachers highlight new words in some fashion even though vocabulary is not a major component in their instructional program. They will introduce new words before students read literature selections or content area text sections, have students study a list of vocabulary words, and then test them at the end of the week. The theoretical perspective which drives such standard procedures arise from the notion that knowing word meanings is fundamental to understanding concepts presented in texts. Yet, such practices primarily serve to promote vocabulary knowledge and not necessarily reading comprehension.

Although lack of vocabulary knowledge has a detrimental effect on reading comprehension, research demonstrates that not all vocabulary instruction will increase comprehension (Nagy, 1988). What we do know is that vocabulary learning informs reading comprehension when children can integrate new words with other conceptual knowledge, are exposed to multiple encounters with the new word in natural print environments, and can process the new word in a meaningful manner by drawing substantive inferences (Nagy, 1988). Thus, when the components of integration, repetition, and meaningful use drive vocabulary learning, reading comprehension can be enhanced.
Literature-based Reading Programs

Middle school language arts programs have traditionally followed the pattern set by elementary curricula in which reading skills are taught through a commercial basal reading system with a scope and sequence chart ranging from kindergarten to eighth grade (Walmsley, 1992). However, fundamental changes in reading programs at the middle school level in recent years have occurred as a result of current knowledge about the reading process. These new insights are in line with the holistic nature of language development where language learning occurs in naturalistic, meaningful ways (Cullinan, 1989; Goodman, 1986). Language is kept whole and not divided into discrete portions and sequentially taught in hierarchical fashion as in traditional programs. The purpose and function of language are emphasized as students develop literacy behaviors. This becomes increasingly more important for young adolescents. They are continually seeking to make sense of their worlds with their growing capacity for higher levels of abstract thought and reasoning ability.

Reading, as an integral part of language development, is described as a natural process involving the interplay of complex variables in sociocultural situations. The reading experience becomes a transaction between the reader and the text where meaning is constructed and negotiated with the
reader's past experience and knowledge base. The learner demonstrates facility with language and an understanding of text structures within the social context of the reading.

Because this constructivist perspective of the reading process advocates and informs the use of quality literature for young adolescents, a myriad of programs with varying designs has flourished across districts resulting in different interpretations for "literature-based" programs (Edelsky, 1992; Giddings, 1990). The central focus for these interpretations points to assumptions grounded in the issue of power; that is, the issue of who determines the nature of the instructional program in the classroom. Publishers of basal reading programs have historically made instructional decisions for teachers and are now yielding the same influence in their current "literature-based" programs packaged with scores of supplementary materials from story summaries (for teachers who have no time to read the books) to comprehension questions and suggested activities with accompanying worksheets (Edelsky, 1992; Goodman, 1988). Essentially, these programs disenfranchise teachers and students by literally doing the planning and decision making.

On the other hand, literature programs which promote authentic literary tasks do not have these constraints. Rather, they empower teachers by allowing them to make decisions and plan the learning outcomes of the classroom.
program. Students also develop ownership and responsibility for their own learning as they read, discuss, and write about what they read. The teacher controls the use of the materials instead of being controlled by them.

Thus, for clarity in this study, the term "literature-based" refers to reading programs in which quality literature for young adults was used to promote enjoyment and pleasure while cultivating and supporting important literacy behaviors. The meaning is synonymous with Huck's (1992) use of the term "comprehensive literature" program where real books are used in the curriculum to help children become readers. In these programs teachers and students are the power sources who work together in creating learning environments rich in literary and literacy experiences. They engage in a mutual exploration of literature, use their knowledge and past experiences to construct personal responses as they read, write, and talk about the literature. Within the social context of the classroom community, they formulate their own questions relevant to the responses which emerge within the particular situation. These questions become guideposts in determining the direction and creation of areas of study unique to this social experience (Edelsky, 1992). Teachers use quality literature to capture student interest while challenging students to travel new highways and experience new adventures through reading.
Descriptions of literature-based programs are similar in that the foundation of these programs rests on the use of trade books as the major instructional materials for enhancing reading development (Hiebert & Colt, 1989; Scharer, 1992; Zarrillo, 1989). However, differing interpretations have created some diversity among teachers' philosophical stances (Zarrillo, 1989) as well as variation in the degree to which specific components and patterns of literature-based instruction are emphasized (Hiebert & Colt, 1989). The following characteristics consistently appear in different studies as descriptors for literature-based classrooms:

- **Use of trade books as the primary material source**
  Literature books are the basis for the entire reading program (Huck et al., 1993).

- **Student response to literature in diversified ways**
  Oral and written responses to literature in efferent and aesthetic ways encourage children to explore higher levels of critical thinking (McGee, 1992).

- **Individualized reading time with self-pacing and self-selection of literature**
  Students have the responsibility of making their own choices about reading selections and of determining an adequate rate to complete learning tasks (Hiebert & Colt, 1989).

- **In-depth discussion groups**
  Conversations with teachers and peers provide students opportunities to explore different levels of meaning as well as different literary experiences associated with a shared reading (Eeds & Wells, 1989; Peterson & Eeds, 1990).
• **Read-alouds**
  Reading aloud to children offers pleasure and enjoyment as well as opportunities to learn new vocabulary (Huck, 1992). Older children can derive these same benefits from read-alouds.

• **Group projects**
  Literature projects provide occasions for middle school students to work cooperatively in small group settings to achieve a common goal (Hiebert & Colt, 1989).

• **Informal assessment/conferences**
  The teacher uses individual conferences and authentic assessment techniques to help student understand their progress, the direction in which they are heading, and the specific learning tasks to be addressed (Hiebert & Colt, 1989).

• **Teacher-student interaction--whole class, group, and individual**
  Teachers engage students in meaningful, authentic learning experiences on a whole-class, group, or individual level (Hiebert & Colt, 1989).

• **Direct instruction of strategies**
  Teacher-directed lessons may consider areas such as vocabulary, literary devices, authors, illustrators, character and plot development, and critical interpretations of literature (Hiebert & Colt, 1989).

• **Literacy for authentic reasons**
  Teachers demonstrate and guide students through realistic literary tasks that have value outside the classroom. Authentic reasons for engaging in literary experiences are understood and accepted by the students (Hiebert & Colt, 1989).

**Intent of the Present Study**

Based upon a rationale that encompasses the importance of word meaning construction in comprehension and the
current trend toward more holistic, literature-based reading programs, the purpose of the present study was to document and examine the ways in which middle school children construct word meanings as they engage in self-sponsored reading within a literature-based environment. As a long-standing literacy issue, vocabulary development must not be ignored as we focus on current holistic practices and programs.

One literature-based reading teacher at the seventh grade level along with two of her classes were the participants in this study. Because of the ethnographic nature of the study, qualitative methodological procedures were used to collect and analyze data. These procedures included interviews, questionnaires, participant observations, conferences, document collection and analysis, and self reports. Six case study participants across two seventh grade classes served as rich informants about personal word meaning constructions during independent silent reading. In addition to individual case study analyses, cross case analyses were developed to unveil similarities and differences in the procedural and conditional knowledge bases used by the students as they confronted unfamiliar words in their personal reading. A close look at word acquisition from the learner's perspective also provided new insights and questions for further inquiry.
A visual display was initially drawn to situate the study within the broader social context of the classroom environment. Miles and Huberman (1994) advocate the use of conceptual frameworks as a way to describe the key constructs of an investigation as well as their potential relationships. These conceptual frameworks serve as a basis for formulating research questions which then become the focal points of the study. The basic conceptual framework depicted in Figure 1.1 below illustrates an initial generalized mapping which guided this study. A more detailed conceptual framework as presented in Figure 5.1 on page 318 emerged during the course of the study and offered a way to position the research questions in relation to the important components of the study.

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**Figure 1.1: Initial Conceptual Framework**

```
SCHOOL ENVIRONMENT

TEACHER ↔ SITE CHARACTERISTICS ↔ LEARNERS
```
Research Questions

The specific questions which guided this study were the following:

- What are the ways in which vocabulary is taught in a literature-based classroom at the middle school level?

- How does the teacher's definition and formulation of literature-based instruction impact vocabulary learning?

- What independent word learning strategies do students use in reading situations in school settings?

- What are students' attitudes toward learning new words?

- What do students' situated think alouds indicate about the conditions under which they employ specific word learning strategies?

- What differences in independent word learning strategies can be observed in individual levels of achievement?

- What relationship exists between the teacher's instructional patterns and the students' independent use of word learning strategies in school settings?

The outcome of this study can broaden the existing knowledge about vocabulary learning and the independent word learning strategies middle school students employ as they engage in personal reading experiences. This close, detailed look at what learners are doing on their own to make sense of unfamiliar words provides us with a better understanding of how current literature-based reading programs can influence the strategies students select as
they read. Furthermore, the study also addresses independent word learning strategies from the learner's perspective and presents new questions for further research in this area.
CHAPTER 2
REVIEW OF THE LITERATURE

Introduction

Studies on vocabulary development and instruction have produced important information about how children learn word meanings and about the ways that teachers can encourage and promote vocabulary development with sound instructional practices. Literacy research has consistently substantiated the strong relationship between vocabulary knowledge and competency in reading and writing. Experts in the field point to vocabulary development as an important component in promoting reading comprehension (Anderson & Nagy, 1992; Nagy, 1988). Because new curricular frameworks in middle school classrooms emphasize a literature-based approach for language instruction, questions arise as to how such programs facilitate vocabulary development. Does the configuration of a literature-based reading program and its theoretical premise promote growth in vocabulary in terms of what we now know about how children develop word meanings? What are the independent word learning strategies children use to learn new words and what is it about a
literature-based classroom that can help middle school children develop these lifelong strategies?

These questions arise from the current body of knowledge about vocabulary acquisition, the relationship between vocabulary knowledge and reading comprehension, and vocabulary instruction. At a time when educators are reassessing many aspects of traditional programs, it is necessary to investigate how these issues are addressed within the framework of a literature-based classroom. Thus, this study was situated within the existing body of research concerning the nature of word meaning acquisition, the impact of vocabulary on reading comprehension, the influence of direct instruction and incidental word learning through context, and the capability of literature-based programs for enhancing vocabulary development.

Vocabulary Acquisition

As a long-standing issue in education, vocabulary development has been the topic of numerous studies, which have divulged a wealth of information about how children acquire word meanings and about appropriate instructional practices. Major areas of concern center around the number of words students need to know to keep up with language growth, the effect of vocabulary knowledge on reading comprehension, the kind of instructional procedures which
increase vocabulary knowledge, and the extent to which wide reading affects vocabulary growth and development.

We know that children learn many word meanings before they are able to recognize these words in print. We also know that by the time they reach fourth or fifth grade, the focus changes from an emphasis on word recognition and decoding to a strong emphasis on learning meanings to unfamiliar words (Chall, 1987). A comparison between a young child's vocabulary and that of an older learner shows that acquiring vocabulary is an enormous achievement and experts are still not sure of the process (Miller and Gildea, 1987).

As students attempt to keep up with school demands, they face the task of learning a staggering proportion of new words. In their studies on vocabulary acquisition, Anderson & Nagy (1992) calculated that there are approximately 88,500 distinct words in printed school English. Based on this number, they found that high school seniors probably know close to 40,000 words, and that the average student in elementary school and high school learns about 2,000 to 3,000 new words every year. In another study Nagy and Anderson (1984) argued that middle school students (grades 6 through 9) probably chance upon approximately 3,000 to 4,000 new words each year, provided they read between 500,000 to one million words in running text per school year. The magnitude of these approximations points
to implications concerning the necessity of addressing vocabulary development within a language-rich classroom environment which capitalizes upon opportunities for wide reading.

The current shift toward more holistic practices suggests that vocabulary learning is embraced within the meaningful and functional aspects of the reader's transaction with the text (Ruddell, 1994). Positioned within this conceptual framework, knowledge of word meanings develops by considering the relationship between the learner's background knowledge of the word and the referential concept as well as the degree and precision of meaning sought for the particular learning event. According to Nagy (1985), "one can know a word in varying degrees" (p. 2) with differing abilities. Competence in defining words offers no assurance that a learner can apply the words in meaningful situations. Also, Beck and McKeown (1991) assert that "knowing a word is not an all-or-nothing proposition; it is not the case that one either knows or does not know a word" (p. 791). Therefore, these differences imply that our knowledge about specific words is as unique and varied as our overall responses to events in our lives.

Such differences in the way we know words has been described by Dale (1965) as consisting of four stages:
Stage 1: "I never saw it before."
Stage 2: "I've heard of it, but I don't know what it means."
Stage 3: "I recognize it in context--it has something to do with..."
Stage 4: "I know it." (Curtis, 1987, p. 43)

Beck et al. (1987) describe various levels of word knowledge in terms of a continuum with the following attributes ranging from no knowledge to complete ownership of the word:

1) The reader has no knowledge of the word.

2) The reader has some general knowledge of the word, such as being able to know that the word carries positive or negative connotations.

3) The reader has a narrow, contextually bound knowledge of the word, such as knowing that a "frugal mother" budgets money, but being unable to understand the word in other situations.

4) The reader may have knowledge of a word but not be able to access it rapidly.

5) The reader has a rich, decontextualized knowledge of a word and its relationship to other words. The reader has full ownership of the word and is able to extend the meaning beyond literal contexts to metaphorical situations.
Another interesting dimension of word knowledge is described by Kameenui et al. (1987) as derived knowledge of a word as opposed to a full understanding of a word. This concept occurs when a reader encounters an unknown word in context, figures out enough information about the word to keep comprehension intact, and keeps on reading the text while quickly forgetting the encounter with the new word. Interestingly enough, derived knowledge of vocabulary seems to be a strategy for coping with unfamiliar words instead of knowledge of words since no degree of meaning is retained.

Graves (1987) gives consideration to instructional goals and how these goals can reflect the various degrees of knowing a word. He outlines six tasks which to some extent are consistent with the descriptions of Dale (1965) and Beck et al. (1987). These tasks are: learning to read known words; learning new meanings for known words; learning new words representing known concepts; learning new words representing new concepts; clarifying and enriching the meanings of known words; and moving words from receptive to expressive vocabularies.

Learning new words that represent known concepts appears to be the largest word-acquisition task students contend with beginning around fourth grade (Graves, 1987). Many words, such as abate or forlorn, are easily taught since such meanings can be related to the learner's conceptual knowledge. However, the volume of these words is
vast and the teacher must decide upon which words to emphasize as well as how to teach them.

Learning words about familiar concepts is also closely tied to learning word meanings from context in which the words occur naturally. This incidental learning of word meanings about known concepts through natural context is supported in research as a feasible method of vocabulary acquisition (Herman, Anderson, Pearson, & Nagy, 1987; Jenkins, Stein, & Wysocki, 1984; Nagy et al., 1987). However, the key to successful word meaning attainment through context lies in the background knowledge the student brings to bear on the text. Generally speaking, students who have limited conceptual knowledge about a topic will be unable to make sufficient use of context as a strategy to learn new words (Nagy et al., 1987). This notion is supported in the studies of Beck et al. (1987), Graves (1986), Stahl and Fairbanks (1986), and Shefelbine (1990), which suggest that students with low vocabularies and limited background knowledge are impeded in their efforts to acquire new word meanings independently.

In other words, students can independently learn new words in context if the concepts are familiar. Students whose conceptual knowledge is limited will have a more difficult time in doing so. Thus, the previously mentioned studies are consistent with a schematic interpretation of vocabulary acquisition. Furthermore, the new words which
are acquired independently through context will be learned at varying degrees of word knowledge depending upon the richness of the context, the reader's conceptual background, and the resulting transaction between reader and text (Nagy, Herman, & Anderson, 1985).

It is evident that what it means to know a word is a question that researchers have tried to answer for many years (Baumann & Kameenui, 1991). It is one that is clearly embedded in the theoretical suppositions about concept development and the instructional practices which emerge from a constructivist paradigm of meaning acquisition. We know that children learn new words from many sources, such as discussions with parents and peers, school-related activities, television programs, radio broadcasts, and reading. From these sources, they will acquire varying levels of word knowledge depending upon their own verbal ability and conceptual background knowledge. Their personal transactions within these contexts affect word knowledge in ways that can either promote greater understanding and awareness of word meanings or cause difficulty in comprehension unless they are given support and clarification by others.
Many correlational studies indicate that vocabulary knowledge is an important predictor of reading comprehension even though there is scant evidence to substantiate a causal relationship (Davis, 1944, 1965; Singer, 1965; cited in Baumann & Kameenui, 1991; Nagy, 1988). We know that teaching children new words will not in itself improve reading comprehension. Beck, McKeown, and Omanson (1987) point out:

The causal links between vocabulary knowledge and reading comprehension are not well understood. For instance, are people good comprehenders because they know a lot of words, or do people know a lot of words because they are good comprehenders and in the course of comprehending text, learn a lot of words, or is there some combination of directionality? (pp. 147-148)

Nagy (1988) also agrees that vocabulary knowledge is requisite for reading comprehension although the relationship is not direct.

Increasing vocabulary knowledge is a basic part of the process of education, both as a means and as an end. Lack of adequate vocabulary knowledge is already an obvious and serious obstacle for many students, and their numbers can be expected to rise as an increasing proportion of them fall into categories considered educationally at risk. At the same time, advances in knowledge will create an ever larger pool of concepts and words that a person must master to be literate and employable. The obviousness of the need and the strong relationship between vocabulary and comprehension invite a simplistic response: if we simply teach students more words, they will understand text better. However, not all vocabulary instruction increases reading comprehension. (p. 1)

M. Ruddell (1994) provides us with an insightful way of examining the underlying theoretical perspectives that
illuminate the relationship between vocabulary and reading comprehension in light of what we now know about the constructive nature of the reading process. She defines comprehension as

a process in which the reader constructs meaning while, or after, interacting with text through the combination of prior knowledge and previous experience, information in text, the stance he or she takes in relationship to the text, and immediate, remembered, or anticipated social interactions and communication. (p. 415)

Such a definition reveals focal points that highlight prior knowledge, textual information, the reader's stance in relation to the text, and social interactions during word learning. Ruddell (1994) asserts that what we know about each of these components varies greatly, although we acknowledge the significance of each in helping to explain the nature of vocabulary knowledge.

In reference to the works of Anderson and Freebody (1981), Ruddell discusses the usefulness of their conceptual framework for investigating the theoretical perspectives influencing the relationship between vocabulary knowledge and reading comprehension processes. They hypothesize three conjectural positions that hold implications for vocabulary instruction: instrumentalist, general aptitude, and general knowledge. The instrumentalist position suggests that there exists a direct relationship between vocabulary and comprehension. The aptitude hypothesis asserts that general verbal ability is the most important factor in
comprehension. The knowledge perspective indicates that knowing a word implies knowing other words related to the idea.

Mezynski (1983) extends this framework by including a fourth category which she labels the access hypothesis. She claims that speed of access may be the crucial component in the vocabulary-comprehension relationship. Stahl (1990) lends support to Mezynski's access theory by asserting that "all comprehension processes [including vocabulary retrieval] share limited cognitive resources. Nonautomatic access to word meanings may impair other comprehension processes by consuming some of these resources that would have been otherwise available for micro- and macroprocessing, for example" (p. 2).

Based upon her definition of comprehension, Ruddell (1994) prefers an alternative conceptualization which places the knowledge hypothesis as an overarching entity that embodies the instrumentalist, aptitude, and access hypotheses. Because such components contribute to our general world knowledge, it is logical to assume that it influences the comprehension process. Referring to the works of Paris, Lipson, & Wixson (1983), Ruddell (1994) conceptualizes the knowledge hypothesis in terms of declarative, procedural, and conditional knowledge and overlays these constructs with the instrumental, access, aptitude, and general knowledge perspectives. Declarative
knowledge refers to what we know about specific word meanings (instrumental); procedural knowledge involves knowing how to process text information including quick and accurate processing (access); and conditional knowledge focuses on "the readers' ability to apply various actions strategically—knowing when to use information in context, the structure of a word, or a reference source to gain meaning, or knowing when to apply procedural knowledge of any kind" (p. 417).

It is apparent that the declarative, procedural, and conditional knowledge perspectives for vocabulary acquisition, as described by Ruddell (1994), are compatible with schema theory. It explains the network of structures that embody our knowledge base (Anderson, 1994) and provides insightful information about the comprehension process. Textual information also affects vocabulary acquisition as well as comprehension. A wealth of evidence is available about the use of context clues in facilitating meaning when learners spontaneously mobilize this strategy as they transact with text (Nagy, 1988; Ruddell, 1994). Furthermore, in terms of reader stance, the work of Louise Rosenblatt on reader response holds implications for how we respond to personal encounters with new words (Rosenblatt, 1994). Along with our beliefs and attitudes about learning new words, the stance we take in our interaction with a text
as we seek to construct meaning may also influence how we learn word meanings (Ruddell, 1994).

Ruddell's final theoretical consideration applied to both vocabulary and reading comprehension is that of social interaction. She asserts that a few studies have examined the extent to which vocabulary learning is influenced by social interaction. Bos et al. (1989) and Stahl and Vancil (1986) found that the use of semantic mapping procedures in combination with rich discussions facilitated word learning better than the procedures without the discussions. The work of Fisher et al. (1991) which focused on cooperative learning groups also suggests positive benefits for word meaning acquisition. In their study, fourth grade students in literature discussion groups self-selected new words to learn from their readings. Using definitional and contextual procedures, each group spent valuable time discussing and interacting with the words in ways that facilitated learning. Furthermore, in their current study of teacher-student interactions in book reading discussions with young children, Dickinson and Smith (1994) found that responses which reflected analysis, prediction, and use of important vocabulary had a strong influence on children's vocabulary and story comprehension. Obviously, these studies lend credence to the notion that social interactions during word learning events enhance the development of these strategies.
In light of these theoretical perspectives about the relationship between vocabulary knowledge and reading comprehension, it seems that vocabulary and comprehension interact in subtle and complex ways and share common processes that are indicative of a multifaceted relationship. Vocabulary knowledge is not only embedded within comprehension but also seems to permeate every critical component in this process. It may be that viable ways to foster vocabulary development can be as varied and multidimensional as its relationship to reading comprehension and could range on a continuum from direct instruction to incidental word learning.

Vocabulary Instruction

Research concerning the effect of direct vocabulary instruction on reading comprehension has produced conflicting evidence as a result of methodological differences and as a result of the complex nature of this relationship. Nevertheless, the primary purpose of direct vocabulary instruction is to improve a student's reading comprehension. Although no one best method for teaching vocabulary has been found, experts agree on the following statements: (1) All vocabulary methods produce better word knowledge than no instruction; (2) No method is consistently better than another method; (3) Advantages exist when a
variety of techniques are employed; and (4) Repeated exposures to the words also indicate advantages over single exposures (Beck & McKeown, 1991).

Beck et al. (1987), Graves (1987), and Stahl and Fairbanks (1986) give strong support for the important role that direct instruction can play in vocabulary development. The recent investigations concerning vocabulary instruction have extended beyond the level of associating words with definitions to another level where word meaning is viewed as an integral part of the semantic processes of comprehension. Within this framework Beck et al. (1991) assert that these processes require a learner to have quick and fluent access to word meanings, rich semantic networks to make connections, and accuracy in word meaning knowledge. Consequently, worthwhile vocabulary instruction should embrace these three features by providing students with frequent, meaningful encounters with the words, rich discussions and elaborations about the words, and extended opportunities to use the words in a variety of contexts outside the classroom. Mezynski's (1983) review of eight studies on vocabulary instruction indicate that the presence of these features are distinct in programs which improve comprehension. Furthermore, in Stahl and Fairbanks' (1986) meta-analysis of approximately thirty studies, they found that successful vocabulary instruction provided repeated exposures to words, offered definitional and contextual
information, and presented opportunities for students to make deeper semantic connections and associations.

There are several variables, however, which affect successful vocabulary instruction. First of all, it is necessary to examine the level of precision required for the reading task. In other words, different tasks require varying degrees of word knowledge, and this level will influence the student's construction of meaning (Graves, 1987; Mezynski, 1983) and the nature of the instruction. Another facet deals with the reader's variability in reading performance, motivation incentives, and overall attitude toward learning new words. These cognitive and affective dimensions are critical aspects that can determine the success or failure of any instructional procedure, including vocabulary acquisition.

It is also important to examine the types of words highlighted for instruction. Beck et al. (1987) assert that some words need rich conceptual instruction more than other words. They divide words into three tiers. Tier #1 represents basic words, such as dog, blue, and stop, which do not demand direct instruction. Tier #3 words are low frequency words which represent specific content area topics, such as microbes and nuclear fission. Because they are useful only within a specific domain, these words are taught when needed. In contrast, tier #2 represents high frequency words of mature language users. Examples include
forlorn, meditate, and impulsive. These general utility words cross various domains and can impact a learner's verbal ability in significant ways. As a result, these types of words need rich instruction.

Another variable to consider is the extent to which vocabulary instruction enhances specific aspects of the comprehension process. Mezynski (1983) refers to a study conducted by Kameenui and Carnine in which vocabulary instruction produced large training effects for inferential comprehension and no training effects for literal comprehension. In another study Wixson (1986) revealed that comprehension questions on ideas not central to a passage being read are more sensitive to vocabulary effects that those focusing on central ideas. These studies point to the difficulty of studying how vocabulary influences reading comprehension and how the results of such studies will depend upon how we measure comprehension.

Findings from instructional research on vocabulary offer us important and useful information about effective vocabulary instruction even though some experts may disagree about the practical issue of using direct instruction to help students learn a multitude of words each year (Nagy, 1988). Nevertheless, research supports the following characteristics of effective vocabulary instruction:

(1) The amount of practice students are given with words is an important determinant in vocabulary
acquisition (Beck et al., 1982; Jenkins et al. 1989; Mezynski, 1983). Jenkins et al. (1989) found that increases in practice with individual word meanings enabled students to acquire higher levels of mastery. Also, instruction in helping students derive meanings from context was more effective with more practice. The Beck et al. (1982) study also shows that the manipulation of the amount of practice affects the level at which new words are learned and used.

(2) Because what it means to know a word varies greatly, effective instruction helps students establish automaticity in lexical access. The presentation of the words within semantic relationships enables the reader to utilize prior knowledge and previous experiences with related concepts to make inferences about the new words. By comparing words in different dimensions and in multiple contexts, students develop a rich knowledge of the instructed words (Beck et al., 1982).

(3) Effective vocabulary instruction actively engages the learner in the active processing of information (Beck et al., 1982; Mezynski, 1983). For example, instead of asking students to tell what *emaciated* means, they would have to engage in
more critical thinking if asked: Would an emaciated-looking person have rosy cheeks? Furthermore, an active approach enables students to elaborate and infer multiple connections of words in various contexts while monitoring their own understanding of targeted words. These three characteristics are not distinct and unrelated entities. Rather, they overlap, permeate, and twist around each other in much the same way that theoretical models try to explain the comprehension process. It is interesting to note that these characteristics of effective vocabulary instruction reflect the theoretical perspectives based upon declarative, procedural, and conditional knowledge with undercurrents of Anderson and Freebody's (1981) instrumentalist, aptitude, and knowledge hypotheses and Mezynski's (1983) speed-of-access hypothesis. However, it is important to remember that these perspectives also overlap, permeate, and twist around these characteristics. For example, implications for providing sufficient practice with new words (characteristic #1) parallel the outcomes of the access hypothesis where automaticity of word knowledge (characteristic #2) is the primary goal. It is also compatible with the acquisition of procedural knowledge where the focus is on processing text information in a rapid, efficient, and accurate manner.
Accessing word meanings in an automatic fashion is influenced by the meaning constructed by the reader through background knowledge and inference. If the word is strongly tied to other knowledge in the reader's schema, then accessing the word will invariably call up other related concepts that aid in facilitating comprehension (Mezynski, 1983). This follows Ruddell's (1994) explanation of declarative knowledge since the words can be known at varying levels and, again, procedural knowledge, since the reader is trying to understand, remember, and associate new meanings with related concepts.

The third characteristic of effective vocabulary instruction, which highlights the active engagement of the learner with the words, seems to be compatible with the conditional knowledge paradigm. Through active engagement students learn to apply various independent word learning strategies, such as knowing when to derive information from context, when to examine the structure of a word, or when to consult a reference source. Through active immersion in the learning, students make important connections, provide elaborations about salient points, and learn to monitor their own level of comprehension.

Other researchers have studied characteristics of effective vocabulary instruction and have generally agreed that powerful vocabulary instruction combines definitional and contextual approaches in order to increase reading
comprehension (Nagy, 1985; Stahl, 1983). Furthermore, successful techniques are those which integrate the new words with other familiar words and concepts (schema theory), offer repeated, meaningful encounters with the words (automaticity), and enable students to apply the newly learned word meanings through inferences and associations with other knowledge (active processing) (Nagy, 1985).

Incidental Word Learning Through Context

Questions arise concerning the efficacy of direct, systematic instruction of vocabulary in light of the large volume of words children need to learn to keep up with school demands (Nagy & Anderson, 1984; Nagy & Herman, 1985). Anderson and Nagy's (1992) estimate of approximately 3,000 new words per year seems to indicate the futility of systematic instruction as the major vehicle for helping children learn this large number of words. Obviously, the numbers are too great and instructional time in school too little for direct instruction to be the only avenue for developing rich vocabularies (Baumann & Kameenui, 1991).

Some experts contend that the greatest amount of vocabulary growth occurs through incidental word learning in normal reading (Anderson & Nagy, 1992; Herman, Anderson, Pearson, & Nagy, 1987; Nagy, 1988). However, few studies have been conducted where difficult words are not emphasized
in some way, thereby making it difficult to understand the extent to which word learning occurs in natural reading. In many investigations of how words are learned in context, the emphasis is placed on the extent to which students derive meanings of specified words at the sentence level and in connected text. Narrative and expository texts used in natural reading situations need to be examined as children read for normal purposes, such as to understand and gain information or to derive pleasure and enjoyment from a good story.

Studies which support this incidental acquisition theory of word learning are scant. One early study by Nagy, Herman, and Anderson (1985) found that the 57 eighth graders in the investigation exhibited small but statistically significant gains in word knowledge through context without manipulating the number of occurrences for unfamiliar words. These gains were consistent across narrative and expository texts even though the narrative texts were not very informative. However, the amount of learning from both texts was comparable.

Furthermore, their findings indicate that learning from context can occur at all levels of word knowledge and that many contexts can provide essential clues to help the reader acquire enough information to understand the meaning of a word. We must remember, however, that the vocabularies of children, as well as adults, contain many words ranging on
the continuum from "knowing a little about a word" to "knowing something about the word" to "being totally familiar with the word." Nagy, Herman, and Anderson (1985) concluded that word learning occurs even after very few exposures to the unknown words in natural context, and that "the strength of learning through context lies in its long-term, cumulative effects" (p. 252). Because incidental word learning materializes in small increments, conventional wisdom points to the rich benefits of the wide and frequent reading of diverse texts.

A related study by Jenkins et al. (1984) noted a difference in ability concerning the acquisition of new words by average and above average fifth grade students. They also found evidence that minimal encounters with unfamiliar words did not promote word learning. Although these findings are in conflict with the findings of Nagy et al. (1985), it may be the result of different research designs. For example, the practice of alerting the students to the nature of the study by highlighting the difficult words seems to negate the incidental learning of new words. Furthermore, Nagy et al. (1985) point out that differences in the ages of the students (5th graders in the Jenkins et al. study and 8th graders in the Nagy et al. study) may be an influential factor in the outcomes of these studies. They refer to the Werner and Kaplan (1952) study which found that children's performance in deriving the meanings of
words from context improved with age. Nevertheless, even with these apparent differences, both studies did find significant learning of new words from context.

In a succeeding study, Nagy, Anderson, and Herman (1987) examined the extent to which 352 students in grades 3, 5, and 7 learned new words from context in the natural reading of narrative and expository texts. They again demonstrated that word learning does occur in natural reading. They did not manipulate or highlight targeted words and included children from a wide range in age and reading ability.

The findings of this study illustrate two important points. First, the results indicate that reading ability appears to have little effect on learning from context, which is contrary to the findings of studies concerning children's ability to derive word meaning from context (McKeown, 1985; Shefelbine, 1990; Stanley & Ginther, 1991). However, Nagy, Anderson, and Herman assert that "in normal reading of real texts, since words occur over a wide range of difficulty and familiarity, there is something there for everyone to learn. If children are given texts they can comprehend, they will gain some knowledge about the meanings of some unfamiliar words" (p. 263).

The second finding concerns the effect that word and text properties have on learning from context. The examination included such properties as word length,
morphological complexity, part of speech, contextual support for each word, readability of text, and density of difficult words. The results indicated that conceptual difficulty and length of unfamiliar words strongly influenced learning from context. These findings demonstrate that the conceptual load of a text is a strong predictor of learning from context and is based upon the readers' background knowledge and existing schema as well as their ability to apply this knowledge to comprehending text. These findings are supported in research by a related study of Herman et al. (1987) who also found that students who read conceptually elaborate texts exhibited higher gains in word knowledge than those students who read shorter, easier texts with superficial explanations of concepts. Nagy et al. (1987) surmise that there may be a relationship between conceptually difficult texts and contextual support since their findings show a tendency for conceptually difficult texts to have high levels of contextual support for hard words.

Within this framework, then, it appears that the conceptual load of a text may be a stronger predictor of learning new words from context than the nature of the contextual support itself. This line of reasoning also illustrates the close relationship between word knowledge and reading comprehension. Both need the same conceptual elaboration in the text for learning to occur and both are
influenced by the readers' background knowledge and existing schemas. Thus, the conclusions of this study give support for frequent, wide reading as a major path to vocabulary growth and development.

A recent study by Shu, Anderson, and Zhang (1995) examined the nature of incidental word learning in normal reading in a cross-cultural investigation of Chinese and American children. The results of this study again indicate that children of all ability levels learn word meanings incidentally. Furthermore, the strength of the contextual support and the conceptual difficulty of words affected the learning of the children from both cultures. Shu et al. concluded that the acquisition of word meanings through incidental learning while reading is a universal occurrence in reference to how written language develops in diverse cultures.

In sum, while it appears that the incidental learning of new words in normal reading is an important aspect of vocabulary development, we must also consider the benefits derived from systematic direct instruction of specific words. It may be that the most feasible and most productive vocabulary program is one that balances direct instruction with wide reading. The research gives legitimate support for both facets of vocabulary acquisition.

However, the tenets supporting this balanced vocabulary program are grounded in research that has focused on the
acquisition of specific word meanings and not on the actual process of learning new words. As stated previously, we have scant information concerning the ways in which learners mobilize independent word learning strategies as they learn words incidentally. We have even less information about the ways in which teachers can formulate viable instructional frameworks that address these strategies. Yet, it may be that the theoretical underpinnings which guide current literature-based reading programs can provide the basis for constructing these frameworks. These programs enable teachers to provide reading instruction in tandem with literature instruction. While students are given opportunities to read widely and to explore their responses to these readings, they can learn the meanings of specific words and, more importantly, learn how to refine and extend their existing independent word learning strategies.

**Literature-Based Reading Programs for Middle School Students**

Literature-based reading programs have emerged and expanded in recent years as the whole language movement has gained momentum in this country. Many teachers have changed to literature-based programs. Such approaches are open to wide interpretation, so a variety of classroom models are labeled "literature-based." Embedded within the theoretical underpinnings of these programs at the middle school level
are issues concerning students' aesthetic response to literature, the role of the teacher, and the cognitive development of early adolescents.

Students' aesthetic responses to literature give substance to literature-based programs. Louise Rosenblatt's (1978) transactional theory of the literary work places the construction of meaning in the transaction occurring between the reader and the text within a particular social context. Using past experiences, knowledge of language, and awareness of text structures, the reader enters into a transactive relationship with text where new feelings, images, and thoughts are evoked during reading. Furthermore, the reader's stance or focus of attention ranging on a continuum from aesthetic to efferent is a factor affecting response as well as personal levels of understanding (Many, 1994). The aesthetic response refers to the lived-through experience of reading while the reader explores personal thoughts, emotions, and associations evoked during reading. The focus of attention in the efferent response is the information that is taken away from the reading. As readers shift along this continuum while reading, they predict, select, infer, confirm, and disconfirm ideas and images to construct meaning (McGee, 1992). The transactive nature of reading calls for the use of quality literature to enhance and support literacy behaviors while early adolescents enjoy the pleasures of good books.
Because personal responses to literature are an important part of literature-based programs, the levels of questioning used to encourage aesthetic response can directly and indirectly influence the development of comprehension strategies. Zarillo (1991) suggests three levels of questioning which encourage students' aesthetic responses in different ways. Level one questions emphasize free responses by inviting students to "write or say anything you want about what you have just read" (p. 232). Questions from level two encourage students to relive the reading experiences by identifying stimulating episodes, visualizing scenes, and stating preferences for certain parts of the book. Level three questions focus on interpreting the reading experience by discussing personal associations, speculating and musing about "what would happen if...," and summarizing and supporting personal reactions to the book. Through these aesthetic explorations, students use the comprehension strategies needed to function as proficient readers. In their study of grand conversations, Eeds and Wells (1989) found that children recalled information, verified statements, supported inferences, read critically, evaluated texts, and exhibited insight into how authors created narratives. These strategies are embedded in the interactions of the reader, the text, and the teacher and are formed and shaped by the social and cultural situation of the classroom community.
The role of the teacher in promoting and encouraging student response to literature cannot be underestimated. Reader response studies demonstrate that instruction devised to promote aesthetic responses to literature can influence the quality and substance of children's literature responses. Galda (1990) reports that teacher prompts and teacher modeling affect the level and content of children's responses. In related studies, Many & Wiseman (1992) and Wiseman et al. (1992) support teacher interventions through literary experience approaches and literary analysis approaches. In the literary experience approach, teachers encouraged aesthetic responses by asking students to make personal connections with the actions of the characters. In the literary analysis approach, discussions focused on information about plot, character, and theme. A combination of both approaches proved to be more effective in eliciting higher quality responses than with student-directed discussions.

In addition to reader response, another facet of literature-based programs concerns the cognitive development of young adolescents. The cognitive changes that occur in young adolescents are characterized by a growing ability for reflective and abstract thought (Irvin, 1990). Furthermore, Vygotsky's theory about language development supports the notion that intellectual growth is closely tied to language development within social settings (Forman & Cazden, 1994).
Because of the great disparity and fluctuation in the development of middle school students, literacy programs must be flexible to accommodate these individual differences and to help the students handle the movement toward more abstract and inferential thinking as they develop more sophisticated levels of language facility. In addition, the egocentric tendencies of young adolescents propel them to search for understanding about life in general and their place in the world. Reading becomes an avenue by which they can satisfy their curiosity and develop a better understanding of perplexing issues. As Robert Probst (1988) contends:

Students read literature to know themselves, and—insofar as they each are a composite of their ideas, attitudes, beliefs, and emotions—to create themselves, for reading will enable them to refine and sharpen their conceptions of the world and the people in it. It is those conceptions that make them who they are. (p. 5)

Support for the use of literature in reading instruction parallels the claims made by whole language advocates in providing children with authentic and meaningful literacy experiences. Giddings (1992) points out that several studies demonstrate the positive correlation between the reading of literature and reading achievement (Anderson, Wilson, & Fielding 1988; Greaney, 1980; Long & Henderson, 1973). Moreover, Cullinan (1992) presents convincing evidence that the power of story rests at the crux of whole language, because we use narratives to
organize our thoughts and make sense of our worlds (Bettelheim, 1976; Britton, 1970; Hardy, 1978; Rosen, 1984).
Clearly, these studies and reports indicate the benefits available to students from the use of quality literature in promoting reading proficiency and the pleasures derived from engagement with a good story.

In sum, the use of quality literature in reading programs for middle school students encourages aesthetic responses while providing opportunities for students to use and refine their comprehension strategies. An insightful teacher can create learning environments where students are challenged to experience new adventures with literature and to share their explorations with others as they seek higher levels of understanding. The teachers and students work together to achieve a realistic balance between developing lifelong literacy behaviors and experiencing the joy of reading. It is the joy and pleasure of reading that sustains and supports the development of strategic readers.

Vocabulary Development and Literature-Based Reading Programs

This perusal of the literature reveals important overlapping issues that are indicative of how well literature-based reading programs can inform vocabulary development. Three major components are described as (1)
instruction or learning episodes which expand knowledge schemas; (2) wide reading; and (3) social interactions and interventions. (Refer to Figure 2.1 on page 57.)

Learning episodes include those activities involving direct instruction of reading strategies, specifically independent word learning strategies for vocabulary development. Some situations arise in authentic, purposeful reading that call for direct instruction of specific word meanings. As students respond to literature in diverse ways, they should also develop awareness and appreciation for learning new words and for eventually using them in oral and written discourse across a variety of learning tasks. Thus, we enhance procedural knowledge by teaching independent word learning strategies, declarative knowledge by emphasizing specific word meanings, and conditional knowledge by cultivating an awareness and appreciation for learning new words.

"Wide reading" is repeatedly included as one important quality of effective vocabulary instruction (Blachowicz & Lee, 1991; Nagy, 1988) and is discussed in reports on literature-based programs (Galda, 1988). The available literature on vocabulary development does not specify whether wide reading refers to copious amounts of time spent reading anything or whether it means time spent reading selective, diversified materials. Furthermore, little reference is made to the level of difficulty of materials.
### VOCABULARY DEVELOPMENT & LITERATURE-BASED PROGRAMS

#### Learning Episodes/Instruction

**Expanding Knowledge Schemas**

- Direct instruction of independent word learning strategies
- Direct instruction of specific word meanings
- Cultivation of an awareness, appreciation, and understanding for learning new words and using them in oral and written discourse

**Direct instruction of strategies**

- Literacy for authentic reasons
- Student response to literature in diverse ways

#### Wide Reading

- Promotion incidental learning of words
- Practice for acquiring higher levels of word mastery in diverse settings (active engagement with words)
- Promotion of lexical access (automaticity)

- Use of trade books as the primary material source
- Independent reading time with self-pacing and self-selection
- Read alouds

#### Social Interactions and Interventions

- Rich discussions about new words
- Informal assessment and teacher intervention
- Teacher-student interactions fostering responses about important words
- Group projects

- In-depth discussion groups (Grand Conversations)
- Informal assessment
- Teacher-student interactions--whole class, group, individual
- Group projects

---

Figure 2.1: Parallel and Shared Components Of Vocabulary Development and Literature-Based Reading Programs

57
There is evidence, however, that children who are exposed to books with harder words and more difficult syntax tend to enhance their vocabulary and reading comprehension (Chall, 1987). Therefore, wide reading, as the second component, will refer to the selection of challenging reading materials from a variety of narrative, expository, and persuasive texts written by authors who address cultural traditions as well as timely issues of interest to middle school students. In this way, wide reading promotes incidental learning of words through context and promotes meaningful practice for acquiring higher levels of word mastery in diverse settings. This active engagement with words also promotes lexical access and automaticity.

The last component stresses the importance of social interactions and interventions in the classroom community. Grand conversations (Peterson & Eeds, 1990) about shared readings of quality literature can include rich discussions about new words that students select themselves. Group projects enable students to work collaboratively in exploring their responses to the literature and in satisfying their curiosity about unfamiliar words. Furthermore, informal assessment procedures can also facilitate teacher interventions in helping individual students learn about new words.

What we now know about the reading process shapes our understanding of vocabulary and its complex relationship to
reading comprehension. It is a facet of reading in need of more research in light of the growing popularity of literature-based programs. It appears from this analysis that the overlapping issues of learning episodes, wide reading of quality literature, and the social climate of the classroom hold important implications for how literature-based reading programs are fruitful grounds for promoting vocabulary development. Yet, at the present time there is a dearth of information regarding the nature and extent to which vocabulary is addressed in these popular programs. A response to the call for research on vocabulary development within holistic reading programs can result in studies to explain, clarify, and extend our understanding of how we can help students develop independent word learning strategies and cultivate an interest in learning new words.

Summary

The existing body of knowledge about vocabulary learning contains many current as well as classic studies which have informed the field in important ways. Yet, there still exists the need for studies which focus on how children at the middle school level use declarative, procedural, and conditional knowledge to construct meanings for unfamiliar words during independent reading. We need to rethink our understanding of vocabulary teaching and
learning in order to change our focus from the outcomes of vocabulary acquisition to what learners are actually doing as they independently construct word meanings during self-sponsored reading events. Furthermore, we also need a clearer understanding of how literature-based programs at this level are actually addressing vocabulary development in light of what we know about word meaning acquisition through direct instruction and incidental learning through context.

Situated within the parameters of this existing body of knowledge about vocabulary acquisition, the aim of the present study was to search for answers to these questions about the procedures and conditions under which students selected and used specific word learning strategies. This search also included an investigation of how these behaviors were influenced by the holistic reading program used in the classroom. Because of the nature of these questions, a qualitative methodological approach was selected as an appropriate design for this investigative inquiry.
CHAPTER 3
METHODOLOGY

Rationale for Research Design

The nature of the research questions for this study on vocabulary learning pointed to the feasibility of using qualitative methods as vehicles for exploring the multiple dimensions of these issues. In light of what we currently describe as postpositivist research paradigms, I positioned myself in the interpretivist stance in order to describe the independent word learning strategies of middle school learners within a literature-based reading program.

Current educational research practices acknowledge that there are different ways of knowing and therefore different ways to view and explain similar social realities (Greene, 1994). We accept the notion that there are different ways to study how children learn and we recognize the fluid nature of the researcher's stance in trying to interpret human interactions as social constructions that are not immutable or static (Gage, 1989; Lather, 1991; Sparkes, 1992). Research, like reading, occurs within a context, and it is within this context that the transactive and
constructive process of meaning occurs (Weaver, 1994). Interpretive research seeks to explore and understand these contexts in uncontrived, naturalistic ways. This perspective, which is grounded in the assumptions of the social nature of reality and in the intersubjective meanings of human interactions (Greene, 1991), offered an insightful way to examine the independent word learning strategies of middle school students.

Interpretivist inquiry considers the values of the researcher as well as the researched and tries to reconstruct the meanings people create in specific contexts. Interpretivist researchers reject the idea of a uniform nature and the belief that phenomena can be manifested in similar ways in different times and places. "The effects on people's actions of their interpretation of their world create the possibility that people may differ in their responses to the same or similar situations" (Gage, 1989, p. 5). Thus, this mode of inquiry presented an opportunity to investigate the different word learning strategies of middle school students across similar classroom contexts.

Interpretivist theory calls attention to the social nature of interaction and the ever-changing role it plays in determining and constructing reality. We live in a world where meaning is constructed out of the events and phenomena of everyday life (McCutcheon & Jung, 1990). Therefore, we try to make sense of these occurrences by exploring the
dynamics of social relationships with questions that seek to uncover and create meaning. Because researchers in the interpretivist stance seek to understand and make sense of this world, they position themselves within the context of the phenomena to be studied. As a result, such a stance is infused with matters of subjectivity that influence the researcher's exploration of multiple realities. In reference to this study, I became an unobtrusive, familiar figure in the two targeted classrooms in order to capture episodes of vocabulary learning.

According to Erickson (1986), interpretive methods can be used effectively in studying school classrooms to the extent that they maintain a focus on the following concerns:

(a) the nature of the classrooms as socially and culturally organized environments for learning;
(b) the nature of teaching as one, but only one, aspect of the reflexive learning environment; and
(c) the nature (and context) of the meaning perspectives of teacher and learner as intrinsic to the educational process. (p. 120)

Emanating from this focus are the following questions which held parallel implications for the present study on vocabulary learning:

(1) What is happening here?

This question addresses the idea that we do not recognize the patterns in our actions as we do them. In the words of Erickson, qualitative fieldwork "helps researchers and teachers to make the familiar strange and interesting again"
In terms of vocabulary development, we needed a clearer understanding of what happens when a learner confronts an unfamiliar word. It is a common occurrence that has not been totally understood and explained by experts in the field.

(2) What does this action mean to the person doing it? A simple description of the action is not enough. It must be accompanied by the person's own understanding and interpretation of the event. An exploration of the development of word meanings by middle school students had to consider the students' own perspectives and stances as they transacted with texts containing new words.

(3) How do these actions consistently influence the people in the immediate environment of everyday life?

Consideration is given to local meanings of events since "surface similarities in behavior are sometimes misleading in educational research" (pp. 121-122). Certain behaviors can be appropriate in one social setting yet inappropriate in another. Because vocabulary knowledge is influenced by the sociocultural aspect of reading, social interactions in the classroom as well as with the researcher were
important factors that could inform word knowledge acquisition.

(4) How are these actions related to the happenings in other similar social settings? We need to acquire a comparative understanding of how these actions may play out in other social settings by keeping in mind the social, political and cultural influences that affect the classroom environment. In reference to vocabulary acquisition, an investigation of similarities and differences across several case studies unveiled information about the learners' independent word learning strategies.

(5) How are these actions performed in different social settings and in different times? This type of comparative understanding takes us beyond the immediate setting in an endeavor to broaden the range of explanations and to increase awareness of how these actions promote learning. Our goal is to teach children independent word learning strategies that they can apply throughout their lives in situations where unfamiliar words are encountered.

An interpretivist research perspective provided the opportunity to explore these issues about vocabulary development in a middle school literature-based classroom in
ways that acknowledged the stance of the researcher, the stance of the researched, and the social nature of classroom learning. The methodological tools used to generate data were observations, formal and informal interviews, grounded surveys, and related documents (Bogdan & Biklen, 1992; Huberman & Miles, 1994; Patton, 1990).

Selection of Research Site

This research study was conducted in the suburbs of a large metropolitan area in south central Texas. Through a preliminary investigation, I obtained information about the necessary protocol to follow in gaining entry to the school districts in this area. Education professors at a nearby state university made recommendations of a particular independent school district on the north side of town that allowed research to be conducted in their schools. After submitting a research proposal in this district, I received approval to conduct the study at Stanton Middle School. I was interested in this school district because of its location, its willingness to allow research, and its reputation for being a progressive school system.
Description of Research Site

School Environment

Located in the northwest quadrant on the outskirts of a large metropolitan area, Stanton Middle School was part of a progressive school district which served approximately 55,000 students. As the seventh largest independent school district in the country, it was also the fastest growing one due to the expansion of large corporate entities and various economic enterprises in the area. Furthermore, a state university was also located in this district.

Student ethnicity in the school district consisted of a small number of Native Americans (1.68%), Asian Americans (.15%), and African Americans (5.8%). The predominant ethnic and cultural groups were Hispanic (49.73%) and White (42.73%). The average household income of families in the district was $35,006. The drop-out rate was 2.95% compared to the statewide rate of 3.8%. 76% of the district's graduates enrolled in college. As the city's seventh largest employer, the school district hired well-qualified individuals who would be assets to the system. Teachers with advanced degrees comprised 48% of the staff.

Stanton Middle School opened its doors to students four years ago. The facility was spacious, modern, and well-planned. The large, well-stocked library was centrally located with classrooms and the administrative offices
branching away from it. Elevators at the end of the halls enabled handicapped children and floating teachers to have easy accessibility to the second level of the building. The cleanliness and the tasteful decor of this building contributed to making this a pleasant and inviting place in which to work and learn.

As with many other newly built schools, Stanton Middle was already too small for the growing population of the district. Because the school population for the present year was over 1200 students in grades six through eight, there were four portable buildings in use and more were needed. Furthermore, several teachers were "floating" teachers without classrooms. Debbie, the teacher participant in this study, volunteered to give up her classroom along with four other teachers. Consequently, she moved to three different classrooms during the academic learning time. One class session was even held in two different classrooms. To alleviate this problem, a bond issue was passed in the fall to provide funds to add an additional wing to this school.

**Student Population**

The student population for the present year was comprised of 64.7% Anglo American, 28.6% Hispanic American, 3.5% African American, 2.9% Asian American, and .3% Native American. (Refer to Figure 3.1 on page 69 for a comparison
of Stanton Middle School with the overall school district in terms of ethnicity.) There were significant differences in terms of the number of Hispanic and Anglo-American students. The majority of these students came from upper middle class families and were described by the principal as being average and above average in ability. The students in Debbie's classes were typical seventh graders whose interests in reading were as varied as their ability, attitude, and motivation--features which cut across all socio-cultural backgrounds and individual life experiences.

<table>
<thead>
<tr>
<th>ETHNICITY</th>
<th>INDEPENDENT SCHOOL DISTRICT</th>
<th>STANTON MIDDLE SCHOOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Native American</td>
<td>1.68%</td>
<td>.3%</td>
</tr>
<tr>
<td>Asian</td>
<td></td>
<td></td>
</tr>
<tr>
<td>American/Pacific Islander</td>
<td>.15%</td>
<td>2.9%</td>
</tr>
<tr>
<td>African American</td>
<td>5.80%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>49.73%</td>
<td>28.6%</td>
</tr>
<tr>
<td>White</td>
<td>42.73%</td>
<td>64.7%</td>
</tr>
</tbody>
</table>

Figure 3.1: Student Ethnicity of Research Site
Selection of Participants

Rationale for the Selection of the Teacher

One teacher and two of her seventh grade classes served as the focus for this in-depth examination of vocabulary learning. The selection of the teacher was made by the principal. I explained that I wanted a teacher who adhered to the following belief statements which are characteristic of literature-based reading programs (Hiebert & Colt, 1989; Huck, 1992):

- Reading is a process that develops through meaningful use.
- All language components must be embedded in an integrated curriculum.
- Literature is the primary vehicle for promoting language learning.
- Attention is given to children's responses to literature as a way of enhancing comprehension.
- Students are given individualized reading time.
- Students read self-selected books at their own pace.
- Teachers read orally to students.
- Literature responses are encouraged through art, drama, and creative writing.

In addition to obtaining recommendations from authorities in the field and conducting administrative interviews, I also used teacher interviews and self reports as well as systematic observations of classroom practices to serve as information sources for the selection of this teacher. In
addition, the teacher had to be a willing participant in this study.

Rationale for the Selection of the Six Focal Learners

The rationale for the case study selections was theoretically driven and based upon the need to establish a representative sample of learners nested within two class groups. Sampling strategies that were implemented to increase confidence in the research findings included typical case sampling to illustrate the norm and classic normal variation to document diversity within typical classrooms (Miles & Huberman, 1994). After five weeks of continual observation and careful scrutiny of learner behaviors within the classroom setting and consistent perusal of fieldnotes, six students were selected as possible candidates for case study participants. Through close consultation with the teacher, the learners were selected using the following criteria: (1) ethnicity, (2) gender, (3) ability, (4) effectiveness as an informant, and (5) willingness to participate in the study.

To achieve a realistic ethnic representation, the sampling included four Anglo-Americans and 2 Hispanic Americans which approximated the proportion of these groups in this particular school setting. Even numbers of boys and girls were selected to achieve gender balance. Through teacher reporting of standardized vocabulary and reading
comprehension test scores as well as teacher confirmation of actual learner performance, a range of ability was established to include somewhat below average, average, and above average learners. The nature of the study did not warrant the inclusion of below average learners as possible informants. Finally, it was necessary to closely examine learners in terms of their effectiveness as rich informants. This criterion was based upon the learner's spontaneous contributions to class discussions over time, teacher judgment, and researcher notes. Furthermore, the learner's willingness to participate in the study along with parental approval were important considerations in the final selections of the six case study participants. Because the focal learners were assigned to two different classrooms, it was necessary to conduct observations in both classes to insure uniformity and consistency in data collection.

My Role as the Researcher

My role as researcher in this study reflected two dimensions in terms of the relationships I developed with the teacher and with the six learners. Because my focus of inquiry about the teacher differed from that of the focal learners, my interactions with both varied. Although such variations are natural considering the differences in the participants, I established my position as researcher early
in the year so that I could observe natural patterns of behavior within the classroom setting.

**My Relationship With the Teacher**

The teacher and I established a strong working relationship where she and I both understood our own positions in this research. I made it clear to her initially that I wanted to observe her reading program with a focus on vocabulary development. I also offered to help her in any way during the school year. She wanted to hear what I had to say about vocabulary learning and appeared to be open to new ideas. With this in mind, I provided current journal articles and booklets about vocabulary instruction for her perusal.

In my eagerness to discuss this literature with her, I realized that we did not react to vocabulary learning in the same manner. Even though she liked what she read, she insisted that vocabulary was not a major focus or thrust in her reading program. She maintained her view that it was a subprocess that did not warrant major instructional time. Her main concern this year was in developing critical thinking and problem-solving skills. Nevertheless, not long after she finished reading these articles, she asked the students to complete vocabulary mapping sheets during the course of their reading.
My stance as that of observer during all of her class sessions was accepted by Debbie and the students as a common occurrence. I was not a part of instructional interactions in the classroom even though students eventually wanted to know more about me. They were interested in my taping equipment and in my job as a researcher and would ask questions during class breaks. Debbie's perception of what I wanted to accomplish and her reaction to my presence in her classroom were mediating forces which maintained my stance as observer. Our intuitive understanding of the roles we had as participant and researcher shaped our positions in this study. Outside of class, however, we interacted as peers in our informal conversations about events of the classroom.

My interest in vocabulary had a subtle influence on Debbie's program as illustrated by her use of the vocabulary map. Although she did not follow through with this activity during the course of the year, my role as observer caused her to become more aware of word learning as an integral part of her program. Thus, my observer stance required much introspection and reflexivity on my part as I acknowledged my own self-conscious engagement and influence in my interpretations of the events of this research study.
My Relationship With the Six Focal Learners

My relationship with each learner was a nontowardening and amiable one that grew over time. Their initial willingness to participate in this investigation was colored with some measure of apprehension since they were unsure of their roles as informants. However, with each successive think aloud session, they became more accustomed to what was expected of them in the role of participant.

Awareness of my own participation in the situated think alouds was especially important since the nature and purpose of my questions could influence the learners' independent word meaning constructions. I used prompts that would guide students through the situated think alouds without influencing their meaning constructions as an outside source. It was necessary for me to maintain a tight control over these questions, because any slight tendency on my part to provide scaffolding would taint the outcomes of the sessions. Thus, my role in these think alouds was that of a prompter and motivator to help learners verbalize their thoughts as they tried to construct meanings of unfamiliar words they encountered during self-sponsored reading.

In sum, my observations of classroom events and my descriptions of the situated think aloud sessions were seen through lenses colored by my perspective as a researcher, my knowledge of middle school students, and my own subjectivities which were laced with a priori knowledge and
expectations. Therefore, I acknowledge the presence of my own voice within the multiple layers of meaning that characterize this interpretive inquiry about students' independent word learning strategies within a literature-based instructional framework (Van Maanen, 1995). This study represents one way of knowing and describes events and relationships relative to those involved in this search for more knowledge about vocabulary development. The findings, which clarify important facets of independent word learning strategies used by middle school learners, can lead to other research endeavors from other perspectives.

Data Collection

Organization of Data Collection Procedures

Data collection for the study was conducted over approximately six months from the middle of August through the end of February. Data gathering procedures followed a series of four phases through which information evolved and emerged over the course of the study (Guba & Lincoln, 1985). Figure 3.2 on page 77 outlines the data collection procedures for each phase. The lines between phases were fluid and resilient because of the nature of the social relationships being investigated in this study.
**PHASE 1**

**Time Frame:** 1 month 5 days/month

**Task:**
- Obtain site entry
- Determine my role as researcher
- Describe reading program
- Investigate teacher behaviors

**Techniques:**
- Observation of teacher actions
- Fieldnotes and tape transcriptions
- Formal and informal teacher interviews
- Conversations with other school personnel

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**PHASE 2**

**Time Frame:** 6 weeks 4 days/week

**Task:**
- Select six focal learners
- Formulate emerging hypotheses concerning teacher behaviors

**Techniques:**
- Teacher conferences
- Observations
- Fieldnotes
- Tape transcriptions
- Reference to standardized test scores
- Documents (student questionnaires on vocabulary learning and student self-evaluation forms)

---

**PHASE 3**

**Time Frame:** 3 months 4 days/week

**Task:**
- Investigate learner behaviors in class settings
- Continue observations of teacher behaviors
- Engage case studies in situated think alouds

**Techniques:**
- Observations and tape transcriptions
- Informal interviews with teacher and students
- Collection of writing samples and vocabulary work

---

**PHASE 4**

**Time Frame:** 2 months 3 days/week

**Task:**
- Continue situated think alouds
- Refine and extend working hypotheses
- Make connections between teacher actions and student learning

**Techniques:**
- Observations
- Tape transcriptions and artifacts

---

**Figure 3.2:** Summary of Data Collection Procedures
During the initial phase which lasted one month, I became acquainted with the participants and the research setting and determined my role as a researcher. The second phase which extended to six weeks involved the selection of the six focal learners and the formulation of emerging hypotheses concerning teacher behaviors and the structure of the literature-based classroom. During the third phase which lasted ten weeks I investigated learner behaviors in whole class settings, continued the observation of teacher behaviors, and engaged the six case study participants in situated think alouds in a systematic manner.

In the final eight-week phase I continued with the situated think alouds, refined and extended the working hypotheses, and examined connections between teacher actions and student learning. The tasks in each of these phases required specific procedures for gathering data about the teacher and her reading program and about the individual case studies. Nevertheless, data collection procedures for both the teacher and her program and the case study participants occurred in conjunction with each other during the last three phases of the study. A description of the teacher and her program as well as the focal learners will serve to clarify data gathering procedures as they occurred throughout different phases of the study.
The Teacher and the Classroom Reading Program

Data collection about the teacher and the program began after site selection and once access and entry were established. The emergent and fluid nature of this inquiry influenced the choice of data collection techniques and determined if the selected methods needed to be modified over time. The major methodological tools used in the different phases to gather data about the teacher and the program were formal and informal teacher interviews, focused and generalized observations, taped transcriptions of classroom events, and a grounded survey instrument to determine the teacher's underlying epistemological beliefs about vocabulary acquisition and its importance in enhancing reading comprehension. The teacher was also asked to complete Deford's Theoretical Orientation to Reading Profile (1985) in order to examine personal belief systems about the reading process. In addition, all students in the two targeted classrooms completed a questionnaire about vocabulary learning.

A general guide for the teacher interview was devised to provide a tentative set of questions which served to keep the conversation focused on the topic. The interview was open-ended so that the interviewee could respond in ways conducive to the context of the classroom environment. Furthermore, this gave the teacher sufficient latitude to express personal beliefs about vocabulary development that
guide vocabulary instruction. The transcription of the interview was reviewed carefully and critically to note questions that still remain unanswered.

Interview questions included the following:

(1) Tell me about your background as a teacher.

(2) How do you define literature-based reading programs?

(3) How do children learn vocabulary?

(4) What are some activities in literature-based programs that promote vocabulary development?

(5) How can you tell if students are learning new words?

(6) What are some things you do that help students learn new words?

(7) How do you assess the difficulty of the books children read in terms of vocabulary load?

(8) What are students' attitudes toward learning new words?

For this probe dealing with the teacher and the classroom reading program, data collection specifically focused on evidence of vocabulary instruction techniques implemented by the teacher and the resulting student interactions. I spend the first four weeks of the study becoming immersed in the daily routine and structure of the teacher's five literature-based classrooms to get acquainted with the teacher and the students. I visited the classrooms five days per week during this time. After that, data collection consisted of four visitations per week during academic learning time of the two targeted classrooms. In
this way, I was able to be present for every weekly session for each class during the entire time frame of the study. As a result, data collection for this probe continued over the duration of the study.

Weekly observations were recorded in fieldnotes and transcribed from audiotapes to determine the extent to which vocabulary instruction was addressed in this literaturated-based reading program. Specifically, these close-proximity observations focused on teacher/student and student/peer interactions with new words, possible occurrences of the instruction and application of independent word learning strategies, and vocabulary exposure through incidental teacher and student behaviors. I carefully attended to the actions of the teacher and the nature of student activities within this environment in terms of vocabulary learning. Furthermore, I used anecdotal records and listings during observation sessions to document subtle components of the literature-based program that could influence vocabulary learning. Such components included the amount of time allotted for actual reading, the use of a wide variety of genre, the availability of reference books, and the willingness of students to ask significant others about word meanings.

To collect information about the reading selections of the program, I developed a three-point rubric scale to describe the vocabulary load of the texts students read.
(refer to Appendix B on page 365). Two outside readers rated each text to document vocabulary richness in these books. Interrater agreement was 73%. The teacher was also asked to rate each selection. Furthermore, all handouts given to students during the time frame of the study were collected as possible sources of vocabulary acquisition. Thus, through systematic observations, taped transcriptions, interviews, collected documents, and outside ratings of assigned texts and self-selected texts, consistent data collection of classroom activities over time provided documentation for the description of how vocabulary was addressed in this program.

The Focal Learners

After the six focal learners were identified and selected during the second phase of the study, multiple data sources provided evidence for the description of the case studies and for the existence and use of independent word learning strategies. Initially, I conducted in-depth individual interviews to document their attitudes and perceptions of vocabulary learning. Furthermore, I cross-checked this data with their responses to the whole-class questionnaire (refer to Appendix B on page 368), their answers to an additional reading attitude survey (refer to Appendix B on page 371), and their comments during the final interview at the end of February.
The major methodological tool for data gathering about the focal learners was the situated think aloud sessions. Because think alouds provide a window into the mental processes learners employ as they construct meaning from texts (Baumann, et al., 1993; Fawcett, 1993), it served as a valuable medium for capturing the independent word learning strategies students employed as they engaged in personal reading. Since the think alouds involved socially constructed interactions between the learner and the researcher, data collected during each episode represented what learners could do to help themselves figure out unfamiliar words during independent reading events. Each think aloud session, which was situated within the independent reading time of the classroom program, followed a systematic routine. Students read silently until they found an unfamiliar word they wanted to examine orally. Then they identified the page number and the sentence containing the word. After that point, I used the following prompts to guide them through the session:

1. Talk to me about that word.
2. Tell me more.
3. What makes you say that?
4. What else can you tell me?
5. What else can you do to help yourself?
6. What gives you that idea?
7. What do you think it means?
I systematically conducted the situated think alouds with each case study during every visitation from October through February. These think aloud sessions occurred during Sustained Silent Reading when the student and I would go to an adjacent room or Debbie's office to read. The time varied from 20 to 30 minutes depending upon the day's agenda. Each think aloud session was audiotaped and carefully transcribed. Several sessions also occurred during the Advisory Period in the afternoon when students had no homework and were free to continue their personal reading. I made copies of every page read during the situated think alouds to allow for accuracy in the interpretation of the word learning strategies used with the targeted words. In addition, a dictionary was readily available during the sessions. In the last three phases of data collection, each case study participated in ten sessions which produced a total of sixty situated think alouds where ninety-two words were discussed.

Another source of information about vocabulary which crossed all phases included a perusal of their reading notebooks which included a vocabulary section. In this section, Debbie asked students at the beginning of the year to find interesting words to study. They had to write the word, the context in which it was found, and their own personal definition for the word. In sum, the data sources about the six case studies came from formal and informal
interviews, questionnaires, surveys, written documents which included all work contained in their reading folders, systematic observations, and the transcriptions of the situated think alouds. The following sections provide a detailed description of the participants and the site context.

Description of the Participants and the Field Setting

Description of the Teacher

Debbie was a veteran educator with a bachelor's degree in English and history and a master's degree in education and English. Having taught twenty years at the middle school level, she was very knowledgeable about how students at this age learn and how they interact with books. Commensurate with the philosophy of the school, she firmly believed that students become more proficient in reading by engaging in reading acts. Because she was admired and respected in this school, Debbie was voted "Teacher of the Year" by her co-workers during the year of this study.

Her Beliefs and Perspectives About Reading. Debbie described her reading program, as well as that of other reading teachers in the school, as literature-based where trade books are the "textbooks of the program." She saw it as a literature-based approach since it allowed students time to read self-selected trade books at their own pace and
for their own enjoyment. Her program emphasized the pleasure and satisfaction gained from reading.

Approximately one-third of daily class time was allotted for this sustained silent reading. The rest of the class time consisted of more structured readings of teacher-selected genres that incorporate whole-class readings, small group readings, and individual selections from a required list.

Debbie advocated the use of quality literature, such as those trade books listed in the Texas Lonestar Book Reading List. Through teacher-selected topics of interest, she placed more emphasis on critical thinking and problem solving and less emphasis on segmented skills-based orientations. She expressed her view about a literature-based reading program in the following manner:

All of our work comes out of the literature—the vocabulary, the study skills, the research—everything has its origin in whatever books the students are reading. To me that's what a literature-based approach means. We don't use a basal reader and we don't do drills and study sheets. Our approach is broad where we are looking more at the thinking skills of the students. We really want them to look at what happens when they are reading; we want them to think about their own thinking. We want to find out what is going on in their minds and we cannot do that with true-false statements and multiple choice questions.

(8/22 p. 2 T1)

Typical of many teachers today who have made the transition from more traditional frameworks of teaching reading to more holistic practices based upon what we now know about language learning and development, Debbie still questioned how to apply these theoretical concepts to her
classroom program. Her goal was to negotiate the construction of a meaningful reading program that suited the needs and interests of middle school youth as they developed more sophisticated literacy behaviors. The results of the TORP assessment (DeFord's Theoretical Orientation to Reading Profile) indicated that Debbie had obvious tendencies toward a holistic perspective about literacy acquisition. She also indicated a measure of uncertainty about some issues grounded in traditional skills-based frameworks, mainly in reference to early literacy programs.

By examining reading behaviors with a lens focused on the older reader, Debbie acknowledged the importance of encouraging comprehension strategies such as predicting events, sampling the text, and confirming or disconfirming predictions. She discounted the necessity of knowledge of grammatical functions (nouns, verbs, etc.) for proficient reading. She felt that semantically correct miscues in oral reading were acceptable and that encounters with new words in reading did not always need to be prefaced with clarification. Furthermore, she believed that encouraging students to guess at unfamiliar words and to read on were acceptable and worthwhile reading strategies. She felt that the dictionary was only one tool at the disposal of the student for determining the meaning and pronunciation of new words.
Juxtaposed with these holistic tendencies were several areas of uncertainty whereby Debbie tried to negotiate and articulate her belief systems about reading acquisition and instruction from the standpoint of a secondary teacher. A close examination of these areas revealed aspects of early reading instructional programs instead of issues related to later reading development. For example, she was unsure about the level of importance given to fluency, syllabication, phonics, repetition of sight words, and attention to punctuation marks. Furthermore, she was indecisive about the extent to which initial encounters with print should focus on meaning and whether it was necessary to introduce new words before reading. It may be that these uncertainties illuminate the differences in perspective between what constitutes reading instruction in the primary grades as compared to what occurs with older readers.

Her Beliefs and Perspectives About Vocabulary Learning and Instruction. In an initial effort to tap into Debbie's beliefs about vocabulary learning and instruction, I asked her to complete a survey instrument developed and used by Konopak and Williams (1994) in a study on teacher beliefs and decisions about vocabulary. The survey consisted of twelve statements about vocabulary learning and another twelve statements about vocabulary instruction. Debbie was instructed to circle four statements in each section with which she agreed. This forced answer survey was based upon
three broad hypotheses about the relationship between vocabulary and reading comprehension: (1) the knowledge hypothesis which supports the notion that knowledge of one word means knowledge of ideas and other related words; (2) the instrumental hypothesis which proposes that individual word knowledge in itself enhances reading comprehension; and (3) the access hypothesis which suggests that verbal ability and quick, automatic retrieval of known word meanings are necessary conditions for effective processing of text.

All three hypotheses, which are supported by vocabulary research (Konopak & Williams, 1994), indicate that effective vocabulary instruction should (1) teach words in semantically related and conceptually driven frameworks, (2) provide frequent and varied encounters with the words, and (3) highlight active processing of the words by the students. In other words, the knowledge hypothesis actually incorporates these features by emphasizing the learning of conceptually related words through active student participation in meaningful and varied contexts.

For beliefs about vocabulary learning, Debbie selected the following statements:

1. A new word is acquired through learning about a topic and information about that topic.

2. Having knowledge about a subject helps children learn new, related words.

3. A new word is acquired through many encounters with its definition.
4. Learning a new word means developing a concept, or ideas related to that word.

For vocabulary instruction, Debbie chose these statements:

1. A language experience approach, such as making butter, enhances word learning.

2. A word such as "mast" is best learned when studying about boats and sailing.

3. Using children's background knowledge helps in teaching new words and meanings.

4. Teaching children about plants in science will help children learn new words such as "crop" in social studies.

These responses indicated that Debbie's beliefs about vocabulary learning and instruction were compatible with the knowledge hypothesis and, to some extent, with the access hypothesis and its emphasis on automatic retrieval of word meanings. Furthermore, they were also consistent with Debbie's current interest in fostering critical thinking and metacognitive strategies throughout her reading program. She realized the futility of learning vocabulary from a contrived list of unrelated words and strongly advocated the use of an individualized approach where students find words to study from their personal readings. This self-selection of unfamiliar words paralleled Debbie's efforts to enhance higher level thinking processes, since the learners had to take a critical look at why the targeted words could present a block to comprehension and how they could apply specific strategies to overcome this interference.

Thus, Debbie's beliefs about vocabulary learning and instruction were grounded in the realization that critical
reading and reasoning behaviors incorporated many subprocesses that weave the patterns upon which meaning is constructed with texts. Vocabulary is one such subprocess that, although not considered to be the main focal point of the reading program, is still an important aspect which is addressed within sound instructional practices for promoting more sophisticated literacy behaviors.

**Her Beliefs About Independent Word Learning Strategies.** Debbie believed that helping students develop independent word learning strategies was an important aspect of her reading program. She modeled strategic behaviors by showing students what alternatives were available to them when they approached unfamiliar words in their reading. If adequate contextual support was unavailable, she recommended that students ask someone before resorting to the dictionary. From past experience, she knew that dictionary definitions were often misconstrued by students and sometimes led to erroneous meanings when applied to different contexts. Students frequently selected the first definition without considering other possible alternatives. Nevertheless, she did teach proper dictionary usage and cautioned students about how to interpret definitions. These actions were done within the context of an ongoing lesson on a specific story and not a targeted lesson on vocabulary.
Description of the Six Focal Learners

Marian. As a bright and very confident individual, Marian demonstrated sophisticated literacy behaviors that serve her well in her academic pursuits. She was a voracious reader coming from a home environment where reading was valued by both parents. Her mother and father took an active role in promoting and enhancing her literacy development through informal conversations about current books they were reading as well as those Marian was reading. They recommended books for her to read and were always willing to add to the family library.

As a result of this family support, it is not surprising that Marian considered herself to be an excellent reader. She described herself in the following manner: "I basically read books that are about a grade level above what I usually do. You know easy books for me are those at my grade level." She felt that people can only become good readers if they "read a lot." Because reading was an enjoyable experience for Marian, she found time every day to immerse herself in her current book. She estimated that she spent at least thirty minutes to an hour every night reading. Along with the twenty-five minutes of daily SSR in school, Marian averaged about an hour to an hour and a half of personal reading per day.

Marian's choices of literature books to read were varied. During this school year, she selected several
classics (original versions) such as Treasure Island, Dr. Jekyll and Mr. Hyde, The Scarlet Letter, and The Three Musketeers. Other readings included The Crystal Cave by Mary Stewart and The October Country by Ray Bradbury. She admitted that she had a wide range of interests in what she read and even liked to read comic books. Newspapers did not interest her.

Lynette. A quiet, intelligent young lady, Lynette described herself as being a good reader because she "reads a lot and reads fast." Reading was an enjoyable pastime for Lynette because it provided a way for her to break away from the routine of everyday life and to experience "somebody else's life." In addition to the twenty-five minutes of Sustain Silent Reading in school, Lynette stated that she read at least another thirty minutes every night before going to bed. Her favorite genres were horror stories, mysteries, and realistic fiction. She claimed to peruse the newspaper occasionally and loved to browse through teenage magazines at least once a month.

Lynette's choices of literature books this school year included several realistic fiction books, such as The Boy Who Lost His Face, Izzy Willy Nilly, Where It Stops Nobody Knows, and Shiloh. She also read many suspenseful novels by R. L. Stine, such as The Dead and Girlfriend. In spite of the criticism given to R. L. Stine's books by the teacher and some classmates, Lynette continued to enjoy this
author's works. Although a strategic reader, Lynette selected popular books that did not challenge her literacy capabilities. As far as she was concerned, her interest and involvement in the story took precedence over the level of difficulty of the book.

Shawn. Shawn was a quick-witted, bright student who exhibited competent literate behaviors. He described himself as a very good reader and claimed to enjoy reading immensely. In addition to the twenty-five minutes of Sustained Silent Reading in school, Shawn stated that he read approximately thirty minutes every evening. Because he loved a good mystery, he had remained faithful to the Hardy Boys series for quite some time. Interestingly enough, Shawn admitted that he could easily predict the outcome of these stories.

I like the mystery and I just like their adventures because they are a mystery and lots of times most of the stories I read I can figure out what's going to happen in the end before I read it....Well since they are by the same author, they're all almost the same because in the end something good is going to happen and about the middle of the story you can sort of tell if you think about it hard enough. (10/17 p. 4 T12)

Apparently, Shawn enjoyed the comfort of knowing what will happen next. He was also astute enough to realize that the Hardy Boys books were not challenging reading. However, at this point in his reading development, he still derived great pleasure from these books.

Although the teacher allowed Shawn to read a few selections from the Hardy Boys series, she urged him to
consider other books. Consequently, Shawn broadened his choices to include such books as *Tarzan of the Apes at the Earth's Core* by Edgar Rice Burroughs, *Timothy of the Cay* by Theodore Taylor, and *Maniac Magee* by Jerry Spinelli. However, he admitted that because *Maniac Magee* was a favorite book, he had read it four times.

**Brady.** Brady considered himself to be an average reader because "there are people who read faster than me and read harder books than me." He claimed to enjoy reading, especially science fiction and horror stories, because it relaxed him and helped him "to fall asleep at night." If his homework load was light, he was more apt to find time to read at home during the school week. Although his weekends were busy with numerous activities, he tried to read at least for a hour on Saturday or Sunday.

The amount of time Brady claimed to read outside of class was inconsistent with the amount of reading he documented. He spent three months reading *Jurassic Park* by Michael Crichton during Sustained Silent Reading. He apparently read at a somewhat slow pace or was not devoting much time at home to reading this book.

**Angela.** Angela defined a good reader as one who "learns more words to understand the story better." It is interesting to note that her self-perceptions about herself as a reader were inconsistent across data sources. In the written questionnaire, she considered herself to be a good
reader because she "likes to learn." Yet, in the taped interview, she admitted that as a reader she was not "too great" because she had trouble reading some words. She felt that mispronouncing words interfered with her comprehension. 

Angela was not an avid reader, did not have a favorite book, and claimed to read only when she was bored. She seldom read at home (estimated two hours weekly) and only read during Sustained Silent Reading at school because it was required by the teacher. Her lack of interest in reading was indicative of the narrow range of strategies she utilized as she engaged with print. In spite of this apparent disinterest and somewhat limited proficiency in reading, Angela managed to maintain average grades in her classes and to score slightly below average on standardized tests.

Angela's choice of books to read for Sustained Silent Reading were narrow. During the study she selected the popular realistic fiction books by such authors as Lois Duncan, Joan Lowery Nixon, and R. L. Stine. She was not quick to finish the books, because she apparently read only during class time—approximately 25 minutes each day. As a result, she had completed four books in six months.

**Heath.** Heath was a typical seventh grade boy with an engaging smile and healthy sense of humor. He considered himself to be a good reader because "I read every day." He apparently was referring to reading in school since he
candidly admitted that he did not spend a large amount of
time at home engaged in reading. He really enjoyed
nonfiction books about animals and about historical events.
He especially liked to peruse *National Geographic* magazines
during his free time.

Heath's choices of trade books for Sustained Silent
Reading were somewhat varied. He read *My Teacher Glows in
the Dark* by Bruce Coville, *Halloween Night II* by R. L.
Stine, and *The Lord of the Flies* by William Golding.
Interestingly enough, Heath stated that he had tried to read
*The Lord of the Flies* when he was in fifth grade, but
admitted that it was too difficult for him. He claimed he
was now more mature to handle this text. His interest in
informational books was not reflected in these selections.

**Site Context**

As with many middle school curricula, Stanton Middle
School had implemented the interdisciplinary team concept
for academic planning in order to achieve consistency in
student expectations and to provide more meaningful learning
through cross-curricula connections. Debbie was part of a
five-member interdisciplinary team consisting of reading,
English, science, mathematics, and social studies teachers.
They met daily during team time from 2:00 to 2:45 to discuss
special problems with students, curriculum designs and
changes, and important logistical concerns.
Debbie had no classroom of her own for this year. Because the school population was burgeoning, there was already a shortage of classrooms. (The school was only four years old.) She volunteered at the end of last year to be a "floating" teacher with three different classrooms in which to teach. She shared an office in the library with another "floating" teacher. With the block schedule, Debbie taught five different classes (75 minutes each) and met with three of them every day on a rotating basis. As a result, she met with each class three times a week.

From the five classes that Debbie taught, the first period class (Class #1) and the second period class (Class #2) were selected as the targeted sites for this study in light of how the groups satisfied the case study criteria. In order to acquire a sampling of case studies that represent a range of learners, it was necessary to examine two classes. Although the school adhered to the practice of assigning students to heterogeneous classes, there were some variations. For example, Class #1 was the team's gifted and talented class composed of students who exhibit exceptional academic ability in one or more specific areas. Not all students in this class, however, demonstrated outstanding performance in literacy. Class #2, on the other hand, was a heterogeneously grouped class containing many average and above average learners in addition to seven students who had been determined as learning disabled. After close
inspection of the learners in all five classes, Debbie agreed that Class #1 and Class #2 offered the greatest range or variation in learner ability, behavior, interest, and attitude. Figure 3.3 on page 100 provides a comparison between the two classes.

**Class Composition.** Class #1, the gifted and talented group, contained 27 students of 15 girls and 12 boys. In terms of ethnicity, the class population had one African-American boy, one African-American girl, four Hispanic Americans (3 boys and 1 girl), and the rest Anglo-American. Class #2 had 20 students with 8 girls and 12 boys. One girl was African-American and six students were Hispanic American (2 girls and 3 boys). The remaining students were Anglo-American.

**Teacher/Student Interactions.** For the most part, Debbie used the same daily lesson plans for all five classes. She conducted each class in similar fashion. All classes started with twenty-five minutes of Sustained Silent Reading followed by a status check of reading progress. Class discussions about required readings followed a general, teacher-directed pattern. Written assignments for required readings remained the same for all students. Differences did arise, however, in the direction in which the line of discussion took in the different classes.
<table>
<thead>
<tr>
<th><strong>SAMPLING DIMENSIONS</strong></th>
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<tr>
<td><strong>Class Composition</strong></td>
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<td>Nbr. of girls</td>
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<td></td>
<td>4 Hispanic</td>
<td>6 Hispanic</td>
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<td></td>
<td>21 Anglo</td>
<td>13 Anglo</td>
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<tr>
<td>Direct instruction</td>
<td>Meanings given by teacher</td>
<td>Meanings given by teacher</td>
</tr>
</tbody>
</table>

Figure 3.3: Comparison of Site Context Between Class #1 and Class #2

100
For example, during a discussion with Class #1 about India's caste system, Debbie had highlighted detailed information about the five caste systems in India because the students were curious. She did not mention this information in the other class.

Another area in which some dissimilar patterns arose was that of appropriate student behavior. Overall Class #1 was a well-behaved, mature group of students. They needed few reminders about accepted class behavior. With Class #2, on the other hand, Debbie had to review and reinforce on-task behaviors more frequently. Several students in this class had short attention spans and weak organizational skills. They were lively and enjoyed conversing with one another. Consequently, Debbie exerted more energy for class management. Furthermore, the special needs teacher was in the classroom for each session. He provided extra support for the seven students who had been identified as learning disabled. These learners were required to complete the same readings and activities as other learners in the class.

Reading Events. Both classes engaged in similar reading events. Sometimes they had to read assigned texts silently and at other times they took turns, Debbie included, reading selections orally. When short stories were read orally, Debbie stopped the reading at strategic points in order to clarify specific concepts. For example, during oral reading of the excerpt from "The Empire Strikes
Back," Debbie extended and refined what students knew about the "dark side."

Teacher: Luke felt the dark side of the force. Is it possible to feel evil? In this case Luke sees or feels this as if it were something real--real enough to touch--and if it is real enough to touch, we call it tangible. He senses this evil all around him. And he knows that something isn't right about this place. He feels cold. He feels death. And Yoda tells him the place is strong with the dark side of the force. But he must go in and Luke asked him what is in there and Yoda's answer is...only what you take in with you. When he goes inside, of course, he is taking his lightsaber, but that's not what Yoda means. What is in the cave is what you take in with you. Mike?

Mike: Like your emotions.

Teacher: What emotions did he take in?

Mike: Anger.

Teacher: Think about what happened. He goes in and he sees Darth Vader. He hears a loud hiss and Vader is there. And then he attacks. He charges Luke and Luke is standing there holding the lightsaber and he attacked and Luke steps to the side and slashes at Vader with the sword and cuts off his head. It rolls on the floor and what is inside the helmet?


Teacher: What was he facing in this cave?

Chad: Himself.

Teacher: Himself. How can you face yourself, Chad?

Chad: He was facing his anger and his fear.

Teacher: He took those things in with him and this is a place of the dark side...this is a place of evil...and so those things were used against him. (10/2 pp. 4-5 T9)

These interjections varied between classes. They arose from the needs of the moment and from how Debbie perceived the class's overall understanding of the reading event. It was her own intuitive feeling concerning the class's transaction with the event that dictated the nature of this guided
discussion. Other reading events included short stories for seminars, brief passages and poems for Socratic practice, and novels for the multicultural mastery and the Lone Star mastery.

**The Texts.** The texts for the required readings remained the same for both classes. However, differences were found in the students' selections of trade books for Sustained Silent Reading. Yet, learners in both classes had common interests in such authors as R. L. Stine and Lois Duncan.

**Vocabulary Episodes.** Direct vocabulary instruction and accompanying activities remained the same for both classes. There were times, however, when Debbie would highlight vocabulary for Class #2 and not for Class #1. Such actions indicate an underlying belief that students in Class #1 possessed a wider word knowledge base and thus needed less vocabulary assistance.

There were some significant differences in class composition, variations in teacher interaction, reading events, texts, and vocabulary episodes with the two targeted classes. However, these differences were minimal in comparison to how Debbie used the same instructional plans for all classes.
The Reading Program

Debbie's plans for her reading classes were influenced by what team teachers in other subject matter areas were addressing. She took advantage of this by using what was being covered in other classes as part of building background for discussion topics in her classes. For example, the topic of stereotyping was an important issue to highlight before reading the short story "Charles" by Shirley Jackson. To get students engaged in a conversation about stereotyping, Debbie asked them to recall their recent history lesson about what it means to be a Texan. From there, she was able to move them to generalize how stereotyping people can be misleading, thus preparing them to think critically about the characters in the short story.

The major components in Debbie's reading program were daily Sustained Silent Reading (SSR), specific mastery units, and recurring seminar sessions. Furthermore, she included integrated instructional episodes that addressed literary elements, Socratic practice, and related writing episodes. Debbie used this general structure to emphasize critical thinking skills and problem-solving strategies so that students would have opportunities to engage in higher level reading experiences.

Sustained Silent Reading. Debbie's daily routine consisted of allowing students approximately 25 minutes of the 75-minute block to engage in SSR (Sustained Silent
Because this was a school-wide effort to promote personal reading, every teacher was responsible for providing students with uninterrupted, independent reading time on a daily basis. In Debbie's classes, this time ranged from 20 to 30 minutes and varied according to the day's agenda. Occasionally students were allowed even more time to engage in personal reading.

Students chose their own books to read from such sources as their home, the school library, and especially the classroom library which was filled with a substantial number of paperback books. Because reading was self-paced, Debbie conducted a status check after each SSR session to document the number of pages students read. These checks helped her to assess the amount of reading each student completed during this time. It also enabled her to keep track of the types of genre and the difficulty level of these self-selected books. In this way she encouraged students who remained locked into one type of book to explore different genres as well as to nudge others to try more challenging books. Debbie did not place undue restrictions on the selection of books. However, at one point during the school year she had to curtail the reading of R. L. Stine books only because another class wanted a chance to check them out of the classroom library.

Students enjoyed this reading time. They became so engaged in their books that they did not pay attention to
others nearby. They were permitted to sit on carpeted areas of the classrooms and to use large pillows available there. In one classroom, they could sit on a sofa and a recliner. Most students availed themselves of these comfortable areas but several always chose to remain at their desks. Debbie found strategic spots in the room to monitor the students as she herself read a trade book.

**Mastery Units.** In order to emphasize critical thinking skills and problem solving strategies, Debbie used several mastery units about specific topics which guided the selection of required readings. She started the year with a mastery about heroes from different cultures. The purpose of this mastery was to help students explore the meaning of heroism and to closely examine how this concept crosses cultural boundaries. She selected six short stories that represented heroes from different cultures and different time periods. Although the stories came from anthology books Debbie used several years ago as classroom texts, she felt that they would challenge students to stretch their transactions with texts to more sophisticated levels. The instructional framework within which these stories were used was similar to the conventional structure of guided reading procedures.

As students read these stories orally and at times silently, they generated a list of heroic characteristics through teacher-directed discussions. This list served as a
basis for examining heroic traits across different cultures. Once this mastery was completed, Debbie guided students in writing an essay about their favorite hero. She used the steps in the writing process as outlined by the school district. The time span for the hero mastery unit was approximately twelve weeks.

Debbie initiated another mastery unit at the beginning of the second semester. This new mastery was a multicultural unit that highlighted several different learning events. Students had to read a novel from an assigned list, design and present a personal culture shield, participate in a literature circle, and write a mini-research paper, a comparison essay, or a poetry reflection folder. Debbie gave students several options through which they could complete the requirements of the mastery. In addition, Class #1 had to design and complete an independent study as an extension of this unit. All students had to contract for the grade they wanted to receive for this multicultural mastery.

Debbie began this unit with the novels. She had multiple copies of five different multicultural books. After presenting a brief synopsis of each book, students submitted their top three choices so that Debbie could form book discussion groups. Most students received their first or second choice. During this unit, students used SSR time to read these novels. Once they finished the books, they
were allowed to continue their personal reading. The book discussion groups were modeled after the literature circles described by Harvey Daniels (1994). Debbie defined and discussed the roles of discussion director, literary luminary, connector, summarizer, vocabulary enricher, and process checker. During the bi-weekly sessions, students selected the amount of text they wanted to discuss as well as the roles they wanted to assume for that particular meeting. One requirement Debbie emphasized was that they alternate roles. The literature circles represented student-centered and student-driven work while Debbie took on the role of facilitator and general guide for all groups. Students had to complete worksheets pertaining to each role as they conducted their group discussions. Debbie then used these sheets for group assessment and evaluation. This mastery also lasted approximately twelve weeks.

Seminars. Another important feature of Debbie's program was seminar sessions. Every six weeks all reading teachers in the school were required to provide students with opportunities to engage in this activity. For seminar, students read a teacher-selected story, book, document, or newspaper article. Then, they were required to form a circle and conduct a open discussion about what they read. Although discussions were teacher-mediated, they differed from regular class discussions of mastery stories in the extended amount of time allowed for the seminar (over sixty
minutes) and in the number of students who responded to teacher prompts. Students were evaluated on the contributions they made to the seminar. While reading, they were encouraged to note important vocabulary and to form questions and comments for discussion. The aim was to enable students to think critically and analytically about important issues in the reading and to be able to articulate their thoughts coherently.

Integrated Instructional Episodes. Other curricular components were interspersed throughout the program. For example, when Debbie addressed specific literary topics such as setting and characterization, she did so in reference to books students were reading during Sustained Silent Reading. In conjunction with the cultural masteries, Debbie introduced different types of genre such as folktales to illustrate how these types of literature represented cultural values and beliefs.

Debbie also conducted several Socratic practices with short literary passages to help students improve their ability to contribute to the seminar sessions. She used poetry and even "The Pledge of Allegiance" to engage students in the higher thinking processes that seminar sessions emphasize. Furthermore, Debbie provided many opportunities for students to respond to literature through writing. Writing episodes included descriptions about setting and characterization based upon personal reading,
essays, reflections about seminars, and informal responses
to questions about specific class readings. These episodes
occurred throughout the reading program.

The Vocabulary Component in Debbie's Reading Program

Vocabulary was not a major focus in Debbie's reading
program. She viewed learning new words as a by-product of
the overall program. Her main thrust this year was to help
students develop stronger critical thinking skills and
problem-solving strategies. In her effort to achieve these
goals, she felt that students would inadvertently learn new
words. Consequently, the vocabulary instruction that was
evident in her program reflected her beliefs that vocabulary
was a subprocess to be treated as a secondary outcome of
learning. Nevertheless, a close examination of accumulated
data over the course of the study revealed that Debbie did
provide some explicit and implicit instruction of specific
word meanings and did include indirect teaching of
independent word learning strategies. (Refer to Appendix B
on pages 372-374 for an outline of observed instructional
episodes with vocabulary.)

Specific Word Meanings. As a prereading activity for
most of the required readings, Debbie selected words to
highlight for the students. She usually wrote words and
definitions on the chalkboard or on a transparency for the
overhead projector. This information then became the focal
point of ensuing class discussions which were generally
teacher-directed. Students were seldom asked to copy these
words or definitions. Debbie simply wanted them to listen
and respond to her questions. Although Debbie consistently
emphasized vocabulary words in the second period class, she
did not follow through with this in the first period class.
This deviation in lesson plans indicated an underlying
belief that more proficient readers need less instruction on
vocabulary, whereas those with less proficient ability in
reading need more structure and scaffolding with vocabulary.

During these vocabulary instructional episodes,
Debbie's actions normally consisted of relating concepts to
students' background knowledge and current life experiences,
explaining with synonyms and brief descriptions, and
questioning students throughout the vocabulary lesson. She
controlled the content and direction of subsequent
interactions with the learners. Students negotiated word
meanings within the parameters set by Debbie during these
discussions. Furthermore, Debbie seldom invited students to
extend or connect word meanings in other ways, such as
writing. Students received one more exposure to the words
when they read the short story selected by Debbie. As a
result, the general procedure was visual exposure on the
chalkboard or overhead projector, related oral discussions
of word meanings, and finally, exposure to the words in the
context of the story which was read either orally or

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silently. This systematic routine occurred with each required reading, especially for the second period class.

In the heroes unit, the vocabulary lesson that accompanied the reading of the short story "The Empire Strikes Back," clearly illustrates this routine. After mentioning that the next hero story would be based upon George Lucas's *Star Wars* trilogy, Debbie displayed the following words and definitions on the overhead projector for the first period class:

- saga--narrative of heroic deeds
- trilogy--a series of three closely related stories which develop one theme
- mentor--advisor; teacher
- android--machine in human form
- canopy--overhanging cover
- bog--marsh; swamp
- sinuous--winding; twisting
- disperse--break up; scatter around (9/28 p. 13 F2 T8)

Debbie led the class discussion about these words by explaining and relating the terms to the students' background knowledge and by questioning their understanding of the brief definitions. Although she followed the same procedure with the second period class, she included additional words to their list. As she related, explained, and questioned their knowledge of these words, the students in the second period class responded in the following manner:

Teacher: The story we are going to read is an excerpt from *Star Wars*, "The Empire Strikes Back." It has a lot of words in it that you are probably not familiar with. Here are some of the words. All right, who can tell me what this word *saga* means? [She covers the
definition and only displays the word on the overhead projector.]

Willie: It means the beginning or how something is formed or something.

Teacher: No.

John: It's something tragic.

Mike: Saga means like a piece of the story that never ends.

Teacher: That's right. A piece of the story. It is a narrative which is a story...a narrative of heroic deeds and in one of our other stories, "The Young Siegfried," I told you that was an epic. An epic is the same as a saga...and it is a story of heroic deeds. The next word is trilogy.

David: That's a group of stories....all three Star Wars movies are a trilogy.

Teacher: That's right. So it is not just a group. It is a specific number--three. A trilogy is a series of closely related things. In this case it is stories, and these stories all develop one theme. And what is one of the themes in Star Wars?

Jill: May the force be with you.

Teacher: May the force be with you and is the force...is that good or evil?

All: Good.

Teacher: Good. One of the themes in Star Wars is good against evil. Now does anyone know what a mentor is?

John: Someone who advises you.

Teacher: Good answer. It is an advisor or a teacher. Some of you have been mentors before. You may have helped younger students. Sometimes you offer advice. What does android mean?

Mike: It's like a robot.

Teacher: Exactly. It is a robot or a machine in human form. Canopy?

Robert: Someone who eats other people.

Teacher: You are thinking of cannibal. [Students chuckle as Robert's response.]

Daniel: It is sort of like a door that pops open.

Teacher: I hadn't thought of that use of it but that might be a use.

Mike: It's like a deck above the ground.

Teacher: I think you are thinking of balcony.

Mike: Yes, that's it.

Teacher: A canopy is a little different. You don't stand on a canopy.

David: It's just a roof.

Teacher: Yes, it is a form of roof.

John: Like a camouflaged covering.
Teacher: It could be a camouflaged covering. It is an overhanging cover.
Claire: They have those in campers, don't they?
Teacher: Yes, they do. It is made of canvas and it looks like tent material. Some stores have them at their entrance. It is an archway that can keep the sun and the rain off you.

For the next three words, *bog*, *sinuous*, and *disperse*, Debbie simply read the definitions to the students. Then she proceeded to put another transparency on the overhead projector that had additional words not presented to the first period class. It generated the following discussion:

Teacher: *Fusion*—unite by melting and it releases energy. What type of technology uses fusion?
Willie: Cars or something.
Teacher: Possibly. I am not sure about that. Fusion can put things together.
Brady: A bomb.
Teacher: Also nuclear energy uses fusion and as the heat is created, it releases energy which powers things like a nuclear reactor or....
David: Solar power.
Teacher: I am not sure about that. I don't know whether a solar-powered car uses that or not. I am not intelligent enough in science to know all the uses of fusion. *Foreboding* means threatening. *Wizened*. Does anyone know this word?
John: It's like getting smart.
Teacher: No, but that's a good guess. It means shriveled. *Gnome*. It is a dwarf of folklore that lives underground or under the earth.

After this discussion the students read "The Empire Strikes Back" orally. No further attention was given to these specific words.

The format of this vocabulary event was used repeatedly with each required reading in the heroes unit. After students received their initial exposure to the
teacher-selected words, they became recipients of knowledge imparted by Debbie in the course of the class discussion about the words. Afterwards, they engaged in their first print exposure situated within the context of the hero story. If any subsequent encounters with the targeted words occurred, then they did so in an incidental fashion.

A variation of this vocabulary format occurred when Debbie taught words for the third seminar story, "At Her Father's and Her Mother's Place." She still selected the words herself and wrote them on the board for students to copy. However, she then asked them to jot down meanings of the words they already knew. After a few minutes, she began the class discussion by asking who knew the first word on the list. The rest of the lesson continued in usual fashion.

An interesting segment of this lesson occurred when a student asked for contextual help.

**Teacher:** Write the definitions for the ones you know. [while walking around the room] It appears that most of you have a lot of 'I don't knows,' which is okay. Let's look at the first word cockade. Is anyone familiar with that word at all?

**Tom:** If you would read or tell us what is around the word...

**Teacher:** Ah...if I could find the word [she starts looking it up in the story]. Why does that make a difference, Tom?

**Tom:** Because it's like how you use it.

**Teacher:** Okay...how you use it. Let's see if I can find. Okay...it's talking about a picture of the girl's mother and father. "They were very young then. He was tall and beardless wearing his army uniform and a hat with a little cockade on it."
Student: Oh, a hat badge.
Student: A feather.
Teacher: Hat badge? Hat badge. That's it. It is a little ornament that you wear on a hat.
Students: Do we write this?
Teacher: I'd like for you to write it down. An ornament that goes on a hat. And I looked it up in the dictionary to be sure and it says it's a rosette shape. Hat badge is a very good definition.
Lynette: Just a hat badge.
Teacher: A badge worn on a hat. It's a little ornament. I guess they could be very elaborate. (11/28 p. 2 T23)

For the book discussion groups in the multicultural mastery, Debbie emphasized vocabulary in a different mode. Because the groups were student-centered and student-directed, vocabulary became the responsibility of the "vocabulary enricher." When group members selected this role, they were required to peruse a targeted section of the book and find either unfamiliar words, interesting words, or confusing words to share with group members. The decision of how to present the words to the group was left up to the "vocabulary enricher." Some students would define words beforehand and others would ask group members to give definitions during the session. The role of "vocabulary enricher" was perceived by some as that of "teacher."

Independent Word Learning Strategies and Episodes.
Debbie promoted independent word learning strategies and episodes in direct and indirect ways. When students were ready to read the first seminar story, "Charles" by Shirley Jackson, Debbie wanted them to find their own vocabulary words to explore in-depth. She therefore asked them to
highlight unfamiliar words they encountered in the story and offered two strategies for them to consider. She explained that one way to identify unknown words was to read the selection first and then skim to find the words. The other strategy was to write down words as they were encountered during the initial reading. Surprisingly, many students could not voice a preference as to which approach worked for them. Apparently, many were not cognizant of these choices and perhaps had not had much experience in metacognitive awareness.

During the class discussion about the hero story "Scarface," Debbie demonstrated a quick lesson about the use of structural analysis as an important independent word learning strategy. Because "Scarface" is the story of a Native American hero, many of the actions given to elements in nature are anthropomorphic. Therefore, Debbie seized the opportunity to acquaint students in both class with anthropomorphism. In the first period class, the word evoked the following discussion:

Teacher: What is the word for nonhumans acting like humans?
Mary: Inanimate.
Donny: Anthropomorphic. We learned that word in Ms. Thompson's class last year. Remember when we had the "word of the day?"
[Another student agreed with Donny.]
Teacher: You are familiar with morph which means to change.
Tony: Yes, like in the Power Rangers.
Teacher: They change to superhuman powers. Another example is Michael Jackson's "Black and White" video. Anytime something not human takes on human characteristics, then it is
Whenever you encounter a new word, this is a way you can figure it out. You probably know anthropology which is the study of man or mankind. (9/21 p. 5 F2)

A similar discussion occurred in the second period class with some minor variations, such as Debbie writing the word on the chalkboard.

Teacher: In this story we noticed that animals talked. Who else talks?
Claire: The gods, the sun, and the morning star.
Teacher: All right. We have a word for that. The word is a hard word. It is anthropomorphic. I want you to know this word. Which part of this word have you ever seen or heard?
John: The first part. The anthro.
Teacher: Where have you heard that?
John: I forget where I heard it.
Ernie: The first three letters are ant.
Teacher: There is another part of this word that I know you have heard.
Heath: Morphic.
Teacher: What does morph mean? It means change. [Several students comment on the Power Rangers.]
Teacher: You know that morphine means change. What did the sun change to? He had what kind of characteristics?
Brady: He was like a person.
Teacher: Yes. He was anthropomorphic. So were the animals. They took on human characteristics when they talked. Apparently the sun also walked because he asked Scarface to go with him.
Angela: What about anthropologist?
Teacher: Anthropologist is a person who studies what?
Chad: Man.
Teacher: The history of man. Good question. You are making a connection because you had heard those prefixes and some of those root words before. (9/20 pp. 9-10 T5)

These discussions focused on structural analysis of words and showed learners how to make connections using word parts as sources of information for figuring out the meaning of polysyllabic words. Although Debbie emphasized this strategy as a legitimate way to analyze unfamiliar words,
the lesson actually emerged from within the context of the "Scarface" story and was not deliberately planned as a way to teach morphemic analysis.

Another example of how Debbie promoted independent word learning episodes was the vocabulary mapping worksheet activity which she assigned after reading the literature I recommended to her. Early in the school year, Debbie explained to students that she wanted them to document new words they encountered in their reading. To help them along, she printed a word map where they would fill in the word, the context in which the word was found, a definition of the term in their own words, and the origin or where the word was found. Debbie wanted students to find at least four words every three weeks. She, in turn, would give them a daily grade for having completed the assignment. In the first period class one student, Tom, wanted to "just get a word I already know and say where I learned it." Debbie countered by emphasizing that the purpose of the activity was to help them learn new words. In doing so she used two students with rich vocabularies as models for the others.

Teacher: As you read, you encounter new words, even Donny and Lorina. They seem to have extremely large vocabularies but how did they reach that point? How did they come to have the vocabulary they have now? Lorina, how do you think you arrived at your vocabulary?

Lorina: The computer thesaurus.

Teacher: So you just sit down and look words up for fun.

Lorina: No. When I am writing and I want a bigger word for something, I look it up in my
Teacher: All right. How about you, Donny?
Donny: I just read a bunch of books and look the words up before I use them.
Teacher: Do you look up the words sometimes so that you know what it means?
Donny: I always look them up.
Teacher: So, class, Donny finds new words in what he reads. Lorina seeks new words out in her writing. (9/26 pp. 1-2 T7)

Another student, Claire, wanted to know what would happen if they did not encounter any new words in their reading.
Debbie candidly pointed out that they probably needed to start reading more challenging books. She also stressed the idea that some words which are familiar in one context could have different meanings in another context. Furthermore, she indicated the changing and fluid nature of the English language by using the word *seminar* as an example.

A lot of words that we have used as nouns have become verbs. For example, we do a *seminar* in the class every six weeks. In the past a *seminar* was a thing. It was a teaching opportunity or it could be a set up arrangement where people come together and talk about ideas. And you would have a *seminar*. We now use it as a verb also. We are going to *seminar* over a story. (9/26 p. 3 T7)

As Debbie explained the activity to the second period class, the discussion took a different turn. Debbie probed their understanding of what strategies to use in finding meanings of new words.

Teacher: You write the sentence that you found the word in on the paper. Then you put down the definition of the word in your own words. Now where do you get the definition? If you don't know what the word means, what can you do?
John: Use the dictionary.
Teacher: You might look it up in the dictionary. What else?
Jill: We could ask you.
Teacher: You could ask me. Who else could you ask?
Claire: Ask a fellow student.
Teacher: Exactly.
John: Ask the teacher or Mr. Linden [special needs teacher who is in this classroom].
Teacher: Mr. Linden. Where else?
Jeffery: The principal.
Teacher: We have named a lot of sources. What I want you to do after you have asked or looked it up, I want you to put that vocabulary word into your own words—words that you understand—words that you would use. A lot of times you can find a synonym.
(9/28 p. 1 T8)

Students in this class also questioned what would happen if they never encountered an unfamiliar word in their reading.

Danny: So we have to find a word a day that we don't know.
Teacher: No. You have to find four words over the next two weeks. You don't have to find a word a day. Some days you read and you don't encounter any new words.
Mary: What happens if you don't ever encounter a word?
Teacher: Who can tell me what probably needs to happen if you are not encountering any new words at all?
Jill: You are reading a book that's too easy.
Teacher: Exactly. You are not challenging yourself if you are reading a book that has no words in it that you are unfamiliar with. In your reading you should be encountering some new words. If not, then you are reading a Barney book probably. (9/28 pp. 2-3 T8)

Debbie encouraged both classes to go beyond the minimum requirement of four words in three weeks. By stressing the importance of learning new words, she gave students an opportunity to enhance their level of word consciousness.

It was apparent that mature language users like Donny and Lorina, who have a large store of vocabulary words at their disposal, are very conscious of words and thus take a active
stance in searching out new words. This vocabulary activity could be viewed as a way to nudge other students into becoming more aware of words. It enabled them to take a more active and independent stance in their construction of meaning during encounters with new words.

As time went on, however, it was apparent that Debbie did not check these papers or prompt students to continue looking for unfamiliar words. Consequently, this activity did not help those students who needed more emphasis and structure in learning new words, since they did not consider this task as valuable or important to them personally.

Words Used in the Reading Program

To discuss the types of words which flowed freely in the oral language components of the reading program, it is advantageous to examine words from some schematic framework that can enlighten and clarify our understanding of this vocabulary. Beck et al. (1987) provides us with a useful representation with their three-tiered description of words. Tier one is composed of basic words whose meanings are already evident to learners because of inherent knowledge of language and former use. Examples can include words such as walk, father, today, stop, run, candy, etc. The second tier consists of high frequency words familiar to seasoned language users. These words cut across specific domains and are valuable because of their general serviceability. Words
such as *abate, maintain, creative, stereotype, divert,* and *provoke* describe tier two words. Tier three words are low frequency words which are conceptually bound to specific domains. Examples include words such as *microbes, proton, neutron, implosion, pistol*—words used in particular subject matter areas. Upon close examination of the words used in the reading program, it was evident that students became knowledgeable about school-related terms as well as conceptually related words that actually cut across Beck et al.'s tier two and tier three words.

**School-Related Terms.** Word meanings are developed through meaningful use in different contexts that can serve to highlight variability in meaning for many words. Our past experiences with words provide the foundation upon which we negotiate new meanings in different contexts (Eishout-Mour & Van Daalen-Kapteigns, 1987). When words were used in school to identify specific components or activities inherent in the reading program, students became rapidly acclimated to these terms because of direct exposure and constant use. They were immersed in these terms that were specific to the school environment and thus learned them in incidental fashion out of necessity.

Debbie's program was well-stocked with these school-related terms. Students engaged in *Sustained Silent Reading* every day and thus learned that *sustained* means prolonged and maintained. Debbie used the phrase *status*
check to refer to recording each student's progress in reading during Sustained Silent Reading. The students learned to connect status with their own situation and condition for that moment. The word advisory was used to identify the afternoon class period from 1:00 to 1:50 which was set aside for nonacademic school matters, such as announcements, locker assignments and problems, pictures, special projects, and conferences. It was also a time allocated for study and individual help with academic learning. Because students and teachers in the entire school used the word advisory freely in reference this class period, students were making connections and building conceptual ideas about this term.

Another interesting school-related term was seminar. This was one major component of Debbie's program because students participated in a seminar every six weeks. The purpose of the seminar was to allow students the opportunity to engage in a shared reading of a story, document, or other literary form whereby they discussed their responses to these readings in a learning circle. The term seminar itself was used frequently by the teacher and students during their class interactions and again was learned as a label for a specific classroom function. Another interesting aspect of this word was that teachers freely converted the term to a verb form. They frequently told
students they would be "seminaring" or they would "seminar" on a particular story.

School-related words can also be domain specific. For example, the students in Debbie's classes learned early in the year about the word genre. They were required to keep a list of books read during the year and to mark each book in terms of genre. The word was constantly used in oral and written form by Debbie and by the students. In the reading of the short story "Charles" by Shirley Jackson, students learned about footnotes. Debbie directed their attention to the footnotes in this selection and pointed out their value and purpose.

School-related terms permeate Beck et al.'s tier two words that represent high frequency words of general utility. For example, during the seminar on "Charles," the students recounted the events of the story in sequential order and made inferences about Charles's behavior. These terms were used by Debbie as she led the class discussions. She followed with direct explanations of the terms and sometimes used specific examples understood by the students. In reference to the term inference, Debbie used the following example:

Teacher: When I give a person a compliment, what is my purpose?
Shawn: You are proud of them.
Teacher: What if I say negative things about them?
Shawn: You don't like them. (8/30 p. 16 F1)
Words Connected Through Conceptual Domains. This classification also cuts across Beck et al.'s tier two and tier three words in that discussions about specific topics invariably include domain specific words as well as sophisticated words of general utility. To preface the reading of "Charles," Debbie conducted a rich discussion about Texans and stereotyping. Some of the words generated in these interactions include the following: kicker (colloquial terms for one who dresses in western attire), tumbleweeds (a term questioned by a student), gila monsters, racism, prejudice, and stereotyping.

In another class discussion about the caste system of India, the following tier two words were used repeatedly: hereditary (and forms of this word), social class, prohibited, occupations, professional, associating, untouchable, and restricts. Interestingly enough, Debbie inadvertently provided students with another context in which the word status was used. During the discussion about India's caste system and the "untouchables," she made the comment that "if you want to maintain your social status, then you don't associate with those people." Beck's tier #2 words, especially those representing abstract concepts, permeated class discussions during this study.
Data Analysis

Organization of Data Analysis Procedures

The tasks involved in data analysis were accomplished concurrently with data collection throughout the four phases of the study. Refer to Figure 3.4 on page 128. During the first phase I developed a methodological procedure for recording fieldnotes and coding and categorizing literacy events and teacher behaviors. I employed member checks, peer debriefing, and triangulation of data sources as I continually reviewed data for these emerging patterns.

During the identification and selection of case study participants in Phase 2, I analyzed the representativeness of the sampling of learners as a way to guide strategy selection. Analytical techniques employed to accomplish these tasks included the use of selected criteria for case study selection, detailed reviews of fieldnotes and transcriptions, triangulation of data sources, and careful examinations of artifacts, such as writing samples and selected trade books. Furthermore, a systematic procedure to follow in the situated think alouds was outlined and then refined during subsequent sessions.

Data analysis tasks during Phase 3 of the study consisted of the development of working hypotheses of learner behaviors in whole class settings and the refinement and extension of hypotheses about teacher behaviors.
<table>
<thead>
<tr>
<th>PHASE 1</th>
<th>Time Frame:</th>
<th>1 month</th>
<th>5 days/month</th>
</tr>
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<tbody>
<tr>
<td>Task:</td>
<td>Develop procedure for recording fieldnotes</td>
<td>Code/categorize literacy events and teacher behaviors</td>
<td>Search for emerging patterns</td>
</tr>
<tr>
<td>Techniques:</td>
<td>Member checks and peer debriefing</td>
<td>Triangulation of data sources</td>
<td>Continuous review of the data</td>
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</tbody>
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<table>
<thead>
<tr>
<th>PHASE 2</th>
<th>Time Frame:</th>
<th>6 weeks</th>
<th>4 days/week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task:</td>
<td>Consider representativeness of learner sampling</td>
<td>Develop format for situated think alouds</td>
<td>Confirm hypotheses of teacher behaviors</td>
</tr>
<tr>
<td>Techniques:</td>
<td>Use of selected criteria of case study selection</td>
<td>Detailed examination of notes, tapes, and artifacts</td>
<td>Triangulation of data sources</td>
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</table>

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<thead>
<tr>
<th>PHASE 3</th>
<th>Time Frame:</th>
<th>3 months</th>
<th>4 days/week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task:</td>
<td>Develop working hypotheses of learner behaviors in whole class settings</td>
<td>Refine and extend hypotheses of teacher behaviors</td>
<td>Code/categorize independent word learning strategies</td>
</tr>
<tr>
<td>Techniques:</td>
<td>Systematic perusal of fieldnotes and transcriptions</td>
<td>Peer debriefing and member check discussions</td>
<td>Multiple readings of student documents and handouts</td>
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<table>
<thead>
<tr>
<th>PHASE 4</th>
<th>Time Frame:</th>
<th>2 months</th>
<th>3 days/week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task:</td>
<td>Continue close examination of data</td>
<td>Analyze situated think alouds in relation to total reading program</td>
<td>Analyze new whole class instructional frameworks</td>
</tr>
<tr>
<td>Techniques:</td>
<td>Continued search for negative cases</td>
<td>Triangulation and peer debriefing</td>
<td>Member checks with teacher and focal learners</td>
</tr>
</tbody>
</table>

Figure 3.4: Summary of Data Analysis Procedures

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It also included the coding and categorizing of independent word learning strategies that evolved from the situated think alouds of the case study participants and the development of a classification system of these strategies. Techniques used to accomplish these tasks included systematic perusal of fieldnotes and transcriptions, peer debriefing, member checks, analysis of teacher handouts, individual case study analysis, cross-case analysis, search for outliers, and inductive analysis.

In the final phase of the study, data analysis consisted of a continued close examination of data with special emphasis on the analysis of the situated think alouds in relation to the total reading program. Procedures included triangulation of data sources and methods, peer debriefing, member checks with all participants, and a persistent search for negative instances to ensure credibility of the findings. Because three major components of data analysis permeated various aspects of the study, a description of each will clarify the nature and purpose of each in this study. In addition, a detailed description of the classification system will serve to illuminate the specific behavior patterns that became evident in the case study analyses.
Consistent and Multiple Readings of Fieldnotes, Transcriptions, and Other Documents

Through extensive rereading, I identified and coded emerging patterns of events and behaviors that pertained to vocabulary knowledge and vocabulary use. Multiple readings of the data served to open new avenues for analytic questioning as well as to enhance my ability to describe the findings in a coherent and thorough manner. These repeated readings occurred over time and created fresh insights about vocabulary learning.

Inductive Analysis of Content

By carefully analyzing primary data from observation fieldnotes and interview transcriptions, I identified and coded general categories that emerged from the data. This inductive analysis produced themes and patterns that were represented as either indigenous concepts or sensitizing concepts (Patton, 1990). Indigenous concepts were created by the participants and represented the essence of the situation or activity. I considered the terminology that arose from the language registers used in the literature-based classroom environment. In contrast, sensitizing concepts, based upon a priori theoretical assumptions that I brought to the study, provided an alternate perspective from which to code and categorize data. Thus, inductive analysis was grounded in the emergent nature of the data as well as influenced by sensitizing
concepts that reflected a priori theories and suppositions about vocabulary development and the nature and basis of literature-based reading programs.

Specifically, my coding system evolved as I engaged in the following actions in my investigation of patterns of word learning behavior:

1. General reading of raw data
2. Multiple readings with a focus on evidence of vocabulary learning opportunities and independent word learning strategies
3. Labeling episodes of word learning opportunities and independent word learning strategies
4. Searching for schematic connections
5. Finding evidence of how learners defined unfamiliar words and how the teacher defined words
6. Searching for unique word learning behaviors across all participants
7. Cross checking case study data for evidence of relationships among components

The actual coding and categorizing labels represented the observed behaviors of the participants. When behaviors reoccurred over time, then I considered such actions as indicative of a specified pattern.

During the fieldwork and the perusal of the data, I generated assertions about vocabulary development in this literature-based classroom by searching and reviewing fieldnotes, interview transcriptions, written documents, my reflexive notations, and all other recordings of events and behaviors from the field site. These inductively derived
assertions were repeatedly tested to warrant validation (Erickson, 1986). Therefore, careful and systematic review of the data gave rise to confirming and disconfirming evidence in reference to each stated assertion. Such a procedure provided a way to reframe and refine assertions and to continue to test them against the body of data. This process of inquiry invited and promoted the construction of meaning grounded in the events of the classroom and the behaviors of the participants.

Case Study Analysis

Analysis of the six focal learners incorporated individual case analysis and cross-case analysis to enhance the breadth and depth of the investigation. The individual case analysis provided carefully detailed description of each student's overall literacy behaviors with a special focus on the use of independent word learning strategies during personal reading. To unveil significant patterns of independent word learning strategies, I relied on multiple readings across all data sources, insights that emerged during periodic member checks, and constant manipulation of data into different configurations. Furthermore, this analysis considered the affective, cognitive, and social dimensions of reading as learners engaged in literacy acts that were part of the literature-based reading program.
I used cross-case analysis to explore how students answered common interview questions and how they performed during the situated think alouds. In this way, I captured similarities and differences that served to confirm and disconfirm emerging theories about how they approached unknown words in their reading and how literature-based classrooms informed their vocabulary development. Looking across the data offered a way to detect possible key linkages between what children were learning about vocabulary and what they were being taught about vocabulary acquisition. Specifically, I searched for patterns emerging from their word learning behaviors, schematic connections, and the ways in which they defined words.

There were cautions, however, to consider about cross-case analysis. Huberman and Miles (1994) warn of the danger "that multiple cases will be analyzed at high levels of inference, aggregating out the local webs of causality and ending with a smooth set of generalizations that may not apply to any single case" (p. 435). They argue for the need to "reconcile an individual's case uniqueness with the need to understand generic processes at work across cases" (p. 435). Consequently, I maintained focused scrutiny upon the individual case studies as I explored various constructs of lexical development in different configurations which could give rise to general assertions about independent word learning strategies.
Description of the Classification System for Independent Word Learning Strategies

The taxonomy designed to describe and interpret the independent word learning strategies of the six focal learners emerged from the data of the situated think alouds (refer to Appendix B on page 375). This classification system served as a basis for examining recurrent patterns and unique strategies that were employed as learners interacted with unfamiliar words. Three broad areas of investigation included independent word learning strategies, schematic connections, and generated word meanings.

The strategies category was subdivided into contextual analysis, phonetic analysis, structural analysis, and outside sources. Under contextual analysis learners demonstrated use of sentence content, passage content, and key words and phrases. If students remained locked into the meaning of the sentence, then sentence content was checked as the predominant contextual strategy. When learners ventured away from the sentence containing the word by either referring to previous text or text occurring after the word, then they were classified as using passage content. The category of key words and phrases traversed both sentence and passage content. While focusing on the context, students would naturally reread and read on as they negotiated meaning with the text. Picture clues were also used with texts that contained illustrations.
Knowledge of phonetic analysis or sound/symbol relationships was also used by some learners as they tried to identify unfamiliar terms. Pronunciation and the sound of the word or the sentence was a valued strategy in several episodes across all ability levels. If learners made unsolicited comments about pronunciation or about the sound of the word, then this category was checked as a possible independent word learning strategy.

Morphemic analysis or structural analysis also emerged as a noted independent word learning strategy. In addition to the conventional attention to affixes and roots, students also relied on the overall appearance of the word as an aid in constructing word meaning. In other words, they made associations with words that were similar in appearance to the targeted word. Some of these associations transcended knowledge of familiar roots, because they were based upon actual similarities with spelling patterns. For example, one learner associated the word inherent with inherited. Word appearance then emerged as a significant independent word learning strategy across case study participants.

The use of outside sources as an independent word learning strategy included the use of the dictionary which was readily available during each situated think aloud. The accessibility to a reference book was necessary to insure that the situated think alouds simulated naturalistic settings. Students were not prompted to use the dictionary.
but had the book at their disposal if they voluntarily wanted to look up the targeted word. The last category of "ask someone" was included in the taxonomy because several learners made references to this strategy as they tried to make sense of unfamiliar words, even though they did not actually use the strategy.

Schematic connections were an important part of the data analysis. Based upon the learners' prior knowledge and experiential base and the identifiable conceptual load of the text, the connections which emerged from the data were classified as text-bound, extended, analogous, and no connections. Each word targeted in the situated think alouds was analyzed in terms of these connections. If the learner only made references to ideas in the text, this connection was labeled text-bound. However, when learners ventured beyond the text to personal references or related words, such comments were considered extended connections. If the learner used analogies to construct word meaning, then these actions were classified initially as analogous schematic connections and then subsumed under extended schematic connections. The "no connection" category was used to describe situations where no obvious connections were evident in the think aloud. Another aspect of the schematic connections dealt with the learners' possession of partial word knowledge which was revealed incidentally as they negotiated with text. This partial word knowledge
could refer to either knowledge about meanings of individual words or about generalized knowledge of how words work.

Another category was generated word meanings. During each situated think aloud, learners were asked to articulate a meaning for the targeted word. As a result, these definitions were described as generalized or not precise, correct, and incorrect. Other sections under this category included the use of syntactically correct synonyms as replacements for targeted words and the occurrence of meaning transformations as learners talked through word meaning constructions during the situated think alouds.

Criteria for Trustworthiness and Credibility

To establish credibility in this study, I incorporated several tactics throughout the research process that served to define and delineate validity as an intrinsic entity in this exploration of independent word learning strategies. In order to build trust and rapport with participants and to become immersed in the culture of the classroom, prolonged engagement and persistent observations were necessary actions that increased the credibility of the findings. I collected data at the site for a period of approximately six and one-half months from August until the end of February. Furthermore, peer debriefers offered searching questions and new insights into possible avenues of exploration as well as
different perspectives and interpretive responses to collected data. Their input served as a catalyst that aided in the examination of multiple possibilities of interpretation that influenced the way I constructed meaning from the data (Guba & Lincoln, 1989).

Another technique for checking the representativeness of the findings was the use of member checks which Guba and Lincoln (1989) describe as the "single most crucial technique for establishing credibility" (p. 239). Because extensive use of member checks can heighten face validity (Lather, 1986), both formal and informal member checks were used in this study to clarify and confirm intended meanings and behaviors. Informal member checks occurred throughout the study, and formal member checks were scheduled periodically with the teacher and the six focal learners. In this way the participants had an opportunity to correct any errors of fact or interpretation. It also added another view about the events and behaviors being studied.

Other tactics that were employed included the use of negative case analyses which could disrupt the emerging categories of data. A continued search for these outliers was conducted as a way to illuminate any potential sources that could disconfirm observations and interpretations. This search for negative evidence or discrepant data added credence to the existing findings. Triangulation of qualitative data sources and methods was another means of
substantiating the credibility and enhancing the quality of this study (Patton, 1990). I compared and cross-checked the consistency of the information gathered over time and derived from the different methods and sources employed in the study. For example, what the teacher said in the interviews about the incorporation of vocabulary in the program was juxtaposed with observation fieldnotes to reveal parallels and discrepancies with what was actually observed in the classroom. A third layer of verification came from students as they described how classroom activities helped them learn new words and how they perceived their own independent word learning strategies.

Another criterion for establishing trustworthiness was transferability which "is always relative and depends entirely on the degree to which salient conditions overlap and match" (Lincoln & Guba, 1989, p. 241). Because thick description is the major technique for establishing transferability, an extensive and detailed description of the findings in this study is provided. This narrative accurately depicted the social and cultural climate of the classroom environment as it influenced language choices children made when they engaged in literacy acts.

Because the data was continually recycled and refined through the use of extensive questions, explorations of rival interpretations, analysis of feedback from participants and peer debriefers, and close examination of
potential outlier cases, such techniques applied over time promoted the measure of construct validity (Lather, 1986). This systematic way of establishing the trustworthiness of data was based upon "self-corrective techniques" (p. 65) that lent credibility to the data as well as minimized the influence of personal bias. Furthermore, ecological validity was established since data collection focused on what students can do in terms of using word learning strategies within natural contexts of the classroom setting.

In addition to the previously mentioned criteria for establishing trustworthiness, I closely monitored my own personal subjectivities which could overshadow and place undue limitations upon the study. My preconceived notions and a priori theories about language learning and vocabulary development were an integral part of this study and were acknowledged as an influential component.

Limitations of the Study

No research methodology, whether arising from a positivist or postpositivist paradigm, is absolute in the search to explain social phenomena. With this mind-set, we can accept and appreciate the value of qualitative research in light of what it purports to do. We seek to tell the stories of others and to make sense of these stories in relation to the social and cultural events that greatly
influence the lives of all of us. As I sought to describe how children were learning vocabulary in a literature-based classroom and how they employ independent word learning strategies, I was cognizant that problems involving participation, timing, and interpretation as well as my ability to conduct this research could limit the outcome of the study. However, by acknowledging research constraints and by making concerted efforts to establish credibility and trustworthiness, the strength of this qualitative inquiry was enhanced as I investigated how children were using and developing independent word learning strategies in a literature-based classroom.
CHAPTER 4
THE FINDINGS

Introduction

The findings of this study spanned different aspects of teaching and learning as I explored middle school learners' use of independent word learning strategies in a literature-based classroom setting. Although the primary objective was to examine word learning strategies from the learner's perspective, I also investigated teacher actions and student actions within different whole class settings. The purpose of this secondary search was to explore possible relationships between contexts as students interacted with unfamiliar words.

Word learning opportunities occurred at different levels of engagement. These levels included whole class teacher-directed lessons, group sessions, and individual think aloud sessions. Thus, in this chapter I will first present teacher behaviors during classroom interactions with vocabulary in teacher-directed instructional episodes. Then I will describe student behaviors during these same
instructional times as well as their behaviors during group discussions of books and the situated think aloud sessions.

After this presentation of teacher and student behaviors within these instructional frameworks, I will provide detailed descriptions of independent word learning strategies used by six case study participants before focusing on cross-case findings. A final section will address learners' perceptions of the classroom program as well as their own word learning behaviors.

Figure 4.1 on page 144 serves as an overview of teacher and student behaviors I observed during whole class instructional episodes with vocabulary. This figure outlines behavior patterns of the teacher and students in teacher-directed lessons which dominated much of the vocabulary learning opportunities. Outcomes of these episodes focused on text clarification and exposure to teacher-selected words. These instructional episodes resulted in passive learning stances for students.
Teacher actions lead to student reactions in the context of learning vocabulary. The table outlines the interactions:

<table>
<thead>
<tr>
<th>Teacher Action</th>
<th>Teacher-Selected Words</th>
<th>Students' Reactions</th>
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<tbody>
<tr>
<td>Relates</td>
<td>Teacher-selected words</td>
<td>Activate</td>
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<tr>
<td>Explains</td>
<td>School-related words</td>
<td>Connect</td>
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<td>Questions</td>
<td>Domain-specific words</td>
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<td></td>
<td>General utility words</td>
<td>Question</td>
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<td>frequently known by</td>
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<td></td>
<td>mature language users</td>
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</tbody>
</table>

**Learning Outcomes**

Assumptions about small increments made in word learning

- Text clarification
- Exposure to teacher-selected words in expressive language (speaking and writing)
- Exposure to teacher-selected words in receptive language (reading and listening)
- Passive word learning opportunities for students

**Figure 4.1:** Classroom Interactions and Learning Outcomes in Teacher-Directed Instructional Episodes Concerning Vocabulary
When students engaged in more learner-centered activities, such as group discussions of books and situated think alouds, learning behaviors and outcomes shifted. Figure 4.2 below depicts student actions during group sessions when they participated as vocabulary enricher and/or group member. In these episodes, learning outcomes resulted in the mobilization of independent word learning strategies, self-generated and shared meaning constructions, and exposure to peer-selected words. Students had a vested interest in their own learning and that of the group, since they were responsible for creating specific opportunities to learn new concepts and ideas.

<table>
<thead>
<tr>
<th>Student Actions</th>
<th>Student-Selected Words</th>
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<tbody>
<tr>
<td>Select</td>
<td>Model</td>
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<tr>
<td>Activate</td>
<td>Explain</td>
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<td>Relate</td>
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<td>General utility words</td>
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<td>Foreign words</td>
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<td>Proper nouns</td>
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<td>Domain-specific words</td>
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Learning Outcomes

- Mobilization of word learning strategies
- Self-generated meaning constructions
- Shared meaning constructions
- Exposure to peer-selected words in expressive language (speaking and writing)
- Exposure to peer-selected words in receptive language (reading and listening)
- Active word learning opportunities

Figure 4.2: Student Behaviors and Learning Outcomes During Student-Directed Group Sessions
The situated think aloud format, which enabled focal learners to target unfamiliar words and talk through their meaning constructions, served as a tool for tapping into their natural behaviors during encounters with unfamiliar words. It also provided word learning opportunities for them. Therefore, Figure 4.3 below outlines student actions during these sessions in relation to other learning episodes rendered by the teacher. Each behavior is described in the case study analysis section of this chapter. These descriptions acknowledge another way of observing the complexity of vocabulary learning within the social interactions of classroom contexts.

<table>
<thead>
<tr>
<th>Student Actions</th>
<th>Self-Selected Words</th>
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<tbody>
<tr>
<td>Select</td>
<td>General utility words</td>
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<tr>
<td>Activate</td>
<td>Proper nouns</td>
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<td>Connect</td>
<td>Foreign words</td>
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<tr>
<td>Demonstrate</td>
<td>Domain-specific words</td>
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</table>

Learning Outcomes

Mobilization of independent word learning strategies

Self-generated meaning constructions

Active word-learning opportunities

Figure 4.3: Student Behaviors and Learning Outcomes During Incidental Vocabulary Learning Episodes in Situated Think Aloud Sessions
My investigation of learner behaviors in the situated think aloud sessions revealed another layer of insight into the incidental word learning of middle school students. Thus, in this chapter I will also present a detailed account of the following findings concerning the use of independent word learning strategies:

1. Learners used multiple independent word learning strategies during a single encounter with an unknown word.

2. Wrong meanings did not halt reading as long as the wrong meanings made sense within the overall context of the story.

3. Learners generated syntactically correct synonyms and phrases for unfamiliar words regardless of meaning.

4. Word meaning construction sometimes evolved through several meaning transformations.

5. Key words and phrases were important strategies embedded within content analysis.

6. Parallels existed between the strategic use of word learning behaviors and reading proficiency.

7. Learners tended to remain text-bound with their schematic connections.

In the last segment of this chapter, I will present the learners' perceptions of their word learning in terms of their own metacognitive awareness of strategies and their personal notions about the reading program.
Teacher Behaviors During Vocabulary Instructional Episodes

Introduction

Through prolonged and persistent engagement at the research site, I noted that the program had a teacher-dominated, literature-based agenda. As a result, behaviors exhibited by Debbie became major components in the process of vocabulary teaching and learning. These behaviors, which were explicit as well as implicit, influenced the direction and depth of vocabulary acquisition during class sessions. From the students' perspective, this implicit exposure to vocabulary was, for the most part, fortuitous in that they were generally unaware of the incidental learning of new words and/or different or deeper meanings of familiar words. Explicit teacher behaviors were at times naturally embedded within class discussions and other activities similar to that of implicit or unplanned vocabulary talk.

In this teacher-dominated environment, teacher actions were the focal point from which students reacted. Debbie's actions served as a catalyst in stimulating vocabulary development. During instruction, she related, explained, and questioned students about specific terminology. Students, in turn, reacted by activating their prior knowledge and past experiences, by making connections, and by asking questions themselves about targeted words and
related concepts. Outcomes in terms of vocabulary learning and meaning construction pivoted around the teacher's personal store of words, her beliefs about vocabulary instruction and acquisition, and her responses to students' inherent curiosity about words. She was a major vocabulary source and stimulus for the students.

To gain a clear understanding of Debbie's actions, I carefully considered how she related, explained, and questioned during these instructional episodes with vocabulary. Each action emerged from within the actual teaching and learning situation and became the vehicle by which students were exposed to word meaning clarification. Figure 4.4 on page 150 displays specific teacher behaviors in terms of references, explanations, and inquiry.

References to Sentences, Contexts, and Current Life Experiences

During instructional time with vocabulary, Debbie consistently tried to establish common references and links to what students knew. She sometimes generalized actions on a personal level to help students identify with new ideas. For example, during the class discussion about the words in "Heroes for Today," an excerpt from Reader's Digest, Debbie wanted to clarify the meaning of the word exhort. She told them that the word meant to urge and then personalized the description by commenting, "If you exhort someone, you are urging them to do something." Then she drew students toward
the text by stating, "In this case, the judge exhorts people who are doing bad things, wrongdoers, to get themselves straightened out." In this manner, she showed learners that *exhort* was an action that they themselves could take.

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<tr>
<th>Relates</th>
<th>Explains</th>
<th>Questions</th>
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<tr>
<td>Sentence contexts</td>
<td>Synonyms</td>
<td>Elicits single word responses</td>
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<td>Story contexts</td>
<td>Brief definitions</td>
<td>Elicits in-depth responses</td>
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<td>Current life experiences</td>
<td>Examples and nonexamples</td>
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<td>Associations</td>
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<td>Word variations and unique expressions</td>
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</table>
In the same text, "Heroes for Today," Debbie again used the same technique to draw students into the meaning of another word, **probation**.

**Teacher:** What does **probation** mean? Steven?

**Steven:** Probation is something like you get like when you are a juvenile and get out and you can't leave this landmark or something...

**Teacher:** What's going to happen while you are on **probation**?

**Chad:** You can't go anywhere.

**Teacher:** Your behavior is supervised closely. You are closely monitored. If you are out on parole or **probation**, there are certain things you are not allowed to do. And they are checking on you to see if you are doing them.

(9/28 pp. 5-9 T6)

This generalizing of actions to an indeterminate "you" was even used by students as they talked about connections they made. Such references invited students to reflect upon meanings of these words from a more personal instead of global perspective.

As she presented new words, Debbie continually and consistently guided students back to the context in which the words were used in the story under consideration. She would even tell students when context was not helpful in figuring out meanings, such as with the word **restitution** used in this sentence: "He specializes in requiring public acts of contrition and **restitution**." Debbie then resorted to relating the word to something students would understand by stating, "**Restitution** is repayment. For example, if you steal something from someone and you have to make **restitution**, what would you have to do?" Such statements
blended the use of synonyms and familiar scenarios to help learners understand the meaning of the word.

During the same discussion, Debbie focused students' attention on the phrase "dispassionate discourse" as it was used in this sentence: "Many judges view the bench as a place for dispassionate discourse." Again, with minimal context clues, the meaning had to be accessed in other ways. Therefore, Debbie began by finding out what students knew and then related this knowledge to current life experiences as illustrated in the following excerpt:

Teacher: [after reading the sentence] Does anyone know the meaning of the word dispassionate?

Jack: Not passionate.
Teacher: If you are passionate what are you full of?
Danny: Like emotion maybe.
Teacher: Very good, Danny. Dispassionate means not passionate. So dispassionate discourse means unemotional discourse. In this story the way it is used in court, are the lawyers supposed to get emotional?

All: No.
Teacher: No. In O. J. Simpson's trial, are they getting emotional?
All: Yes.
Teacher: They are yelling at each other.
All: Yes.
Teacher: Yes. That is very unprofessional of them to do that. They are supposed to engage in what we would consider dispassionate discourse....an unemotional discussion of the issues where they are not calling each other names and so forth. (9/25 pp. 5-6 T6)

With some contexts, Debbie carefully nudged students along in demonstrating how they must sometimes make connections in figurative ways. For instance, as the class examined words in "Friends In Deed," Debbie highlighted the word groundswell in the following sentence: "Like a wave
rolling through the community, a *groundswell* of momentous proportions had been generated." The sentence referred to how people in one particular neighborhood in Virginia joined together to help an African American family. Their house had been defaced by vandals while they were away for a weekend. Debbie began the discussion by assessing what students already knew.

Teacher: Look at the fifth paragraph. There is the word *groundswell*. Does anyone know what that word means?

Danny: Does that mean like the ground swells up?

Teacher: No. You have a clue right here in the phrase "like a wave rolling through the community."

Brady: A tsunami.

Teacher: Well, that's a tidal wave. A *groundswell* is not something you can really see.

Jill: Is it like a flood sort of?

Teacher: Well, it is like a flood, but it is a flood or an outpouring of emotions or help. In this case, the people in the community were fed up with vandalism. So they all pitched in to help out and paint this house. The *groundswell* or outpouring or flood was in their emotions and in their willingness to help. So that is what a *groundswell* is. They all came together and they all had the same idea of what they wanted to do so they focused their energy and their efforts.

In addition to story context, Debbie also related unfamiliar meanings to known words. During the heroes unit, students read "Scarface," the story of a Blackfoot Indian hero who made a comment to the sun that he was not a "*designing person.*" When asked what they knew of the word *designing*, several students made connections to people who design clothes or buildings. Debbie acknowledged these meanings and then proceeded to tell students that it could
also refer to a person with a hidden motive or reason for doing something.

Explanations About Specific Vocabulary

Debbie used a variety of techniques to clarify word meanings through explanation. These techniques included the use of synonyms, brief descriptions, examples and nonexamples, rephrasing, repetition, associations, and unique, varied expressions. Similar to direct questioning, these categories are loosely woven in that the techniques could overlap and even merge into one during the course of class discussions.

Synonyms. Because Debbie preferred to let students fashion their own definitions of words instead of using what they found in dictionaries, she frequently modeled definitions by using synonyms. Every vocabulary instructional episode contained examples of synonyms. Some include "compete" for contend, "winding and twisting" for sinuous, "urges" for exhorts, "repayment" for restitution, and "stumbling" for faltering. As a staunch believer in the use of synonyms for explaining words, Debbie told students that synonyms are one way of defining words. In her instruction about the vocabulary word mapping activity, she recommended that they consider using synonyms to define words they target in their reading.
**Brief Descriptions About Words.** Another way Debbie explained word meanings was through the use of short, descriptive phrases. Examples from required readings included the following:

- commissary stores—army camp supplies
- android—a machine in human form
- disperse—break up; scatter around
- canopy—overhanging cover
- saga—narrative of heroic deeds

With each short definition, however, Debbie elaborated, extended, and clarified meanings to make sure students had ample opportunity to make connections with the words.

**Examples.** When words confused students, Debbie offered important examples to describe meanings. School-related terms, which were often a source of bewilderment to learners, became targeted vocabulary where examples were sufficient to illustrate meaning. For example, when one student asked about the word *characteristic*, Debbie allowed another student to define it and followed with an example about "brown hair and blue eyes are physical characteristics of some boys."

Sometimes special descriptors were used in conjunction with school-related terms to help students expand and differentiate ideas. For example, Debbie conducted a class discussion about narrative settings by polarizing descriptions between integral settings and backdrop settings. She reinforced differences by using an example from a book she had previously read.
The book that I am reading right now, Redwall, has an integral setting. The integral setting is the.....it's probably the Middle Ages---there are mice that talk. And so this is a fantasy. There is a rat named Cluny and Cluny the Scourge is coming and he wants to take over the abbey at Redwall. The clothing that they wear....they wear sandals and they wear these cloaks because they are working in an abbey so they are like little monks. The mice are dressed like monks. The type of food that they eat---all of these things are part of the setting. If I took these mice out of this ancient setting and moved them to San Antonio, Texas, 1995--and they live in Stanton, it would change everything about the book. If you change integral setting, it changes the story. A setting is backdrop if it is not too important like in some realistic fiction books. (9/26 p. 5 T7)

Debbie also used examples to expand and refine meanings of more generalized vocabulary words. During a discussion about morality and conscience, Debbie illustrated the meaning of scruples and conscience with the following description:

Teacher: Scruples refers to the avoidance of doing something due to your conscience. What is your conscience?

Leslie: Like you know right from wrong.....

Teacher: Have you seen the little cartoons where you have a little devil on one side and what sits on the other side?

Michael: A little angel.

Teacher: And the angel points and says "Don't do it; don't do it. That's your conscience. In your head you have to know the difference between right and wrong.....Sometimes it's hard to do the right thing when you need something. Scruples refers to avoiding doing something due to your conscience. So if you avoid stealing because of your conscience, then you have scruples. (9/6 p. 6 T2)

Debbie also resorted to examples to explain the word gnarled to baffled students.

Have you ever seen an elderly person who has arthritis and their hands are all twisted? That's gnarled. Or have you ever seen a tree
trunk that the trunk itself is twisted? That's *gnarled*. (9/28 p. 5 T8)

**Nonexamples.** Pointing out what a word does not mean helped students to focus on targeted meanings. In the discussion about India's caste system, Debbie prefaced the dialogue with what the word *caste* did not refer to in the forthcoming reading assignment.

In the story of "Yudhisthir and His Brothers" we find out about this word--caste [written on the board]. This is not the word that refers to the plaster apparatus that is placed on your arm if you break it. This is a different type of *caste* [Spelling variations can illuminate different meanings]. (9/6 p. 1 T2)

**Rephrasing.** When Debbie used a certain word in her explanations, she often followed with an elaboration for the benefit of those who were uncertain of the word's meaning. Because of the frequent use of this technique, I noted that rephrasing was an intrinsic component of Debbie's perceptions of how to explain concepts to students. The following decontextualized excerpts illustrate Debbie's use of rephrasing.

Let's start recounting the events of the story. We will tell about the beginning, middle, and end. (8/31 p. 18 F1)

This is an excerpt--one tiny piece. (9/5 p. 22 F1)

They had no way of knowing the earth was round. So would that refute what you just said? Make it untrue? (9/20 p. 8 T5)

**Repetition.** I noticed that school-related terms were often repeated by both teacher and students. Words and phrases, such as *Sustained Silent Reading (SSR)*, *status*
check, seminar, and advisory period, were naturally repeated on a daily basis as labels for specific classroom events. Students and the teacher used the terms freely in their interactions with one another. Furthermore, the terms crossed grade levels since these activities were implemented throughout the school.

In extended class discussions, Debbie repeated general utility words frequently. Whether done purposefully or incidentally, such repetitions served to help students internalize word meanings. One obvious illustration is an excerpt from the discussion about untouchables in India's caste system. Debbie used the word associate several times as she explained the meaning of untouchables.

Heath: Why do they call them untouchables?
Teacher: Because you are not supposed to associate with them. You can associate with people in your own social class. If we were to do that in our country, then in this classroom a lot of you would not be able to be in this school...if we went by family income. Would you ever see those kids? You don't associate with them because you don't have the chance. Are there people you know that your parents don't let you associate with? Your parents can control that. It is even more so in a country like India because if you want to maintain your social status, then you don't associate with those people. I see that at school. There are always some students you do not want to associate with.

(9/6 pp. 3-4 T2)

This episode illustrates a common pattern of repetition that occurred often during whole class settings.

Associations. In many instances Debbie clarified meanings of words through associations instead of
definitions. In reference to the word *contend*, she asked students if they ever *contended in athletic events, academic events, and even poker games*. For the word *humble*, she asked the question: "If you had a *humble* home, is it like a castle?"

Sometimes these associations were combined with other strategies such as structural analysis. The following excerpt from the vocabulary discussion for "The White Circle" illustrates the natural use of two techniques as Debbie clarified the meaning of the word *runty*.

Teacher: The next word is *runty*. You may have heard this word before--*runt*--the root of that. Yes?

Jack: Is that the smallest or the youngest?

Teacher: Yes. It could be somebody or it could be a thing. In this case the *runty* item is a tree. One boy describes the tree as a *runty* bush. So would it be a full grown one?

All: No.

Teacher: No, it would not be a full grown bush. 

(10/25 p. 17 T15)

**Unique Words and Expressions.** Debbie frequently used colorful words and phrases in her explanations. These terms served to pique student interest as well as to expose them to figurative language and multiple meanings of commonly known words. Examples of these colorful words and phrases include the following:

In reference to the hero in the story "Siegfried," Debbie said, "He would make him rue the day. He would make him really sorry and regret that he had ever said that." (9/18 p. 4 T4)

"The challenge went out that no one could make a sword that would be strong enough to do any damage to that war coat. Siegfried is the one who took the challenge. Mimer tried to make one, but he couldn't. He worked
for days trying to fashion a sword but was unsuccessful. It never said that he actually made one." (9/18 p. 5 T4)

From the excerpts in the Reader's Digest article about heroes, Debbie referred to the judge who gave young offenders a second chance when she said, "It would be really easy just to rubber stamp it and say okay this is your punishment. That doesn't really teach anybody anything." (9/25 p. 4 T6)

Inquiry About Vocabulary

Throughout whole class discussions, Debbie asked direct questions about specific vocabulary she felt was essential for understanding the topic. The choice of words veered in two directions. One path enabled students to explore deeper connections related to the discussion topic in terms of domain-specific words. These words paralleled Beck et al.'s (1987) tier #3 classification. For example, in the discussion about India's caste system, Debbie asked questions about the word hereditary.

Teacher: Who can tell me what hereditary means?
Shawn: Like your parents or someone related to you.
Teacher: Do you have any control over that?
Shawn: No.
Teacher: You do not. You have no control over your heredity. So it is a social class over which the people have no control. It is based on their religion of Hinduism. It restricts their occupations. (9/7 p. 1 T3)

As this discussion continued, Debbie sidetracked students to follow a parallel path where she clarified the term restrict, which falls into Beck et al.'s second tier of general utility words.

Teacher: ....It restricts their occupations. What does that mean? Do you know what restrict means?
Sally: You can't do it. They won't allow it.
Stuart: It limits what you can do.
Teacher: How many of you have heard that word before with the *ion* on the end of it? What's that word, Ted?
Ted: *Restriction*.
Teacher: How many of you have ever been on *restriction*? [Many hands are raised.] It limits what you can do. If you are *restricted* to a certain group of occupations, there's only so much to choose from. So far, what we have is an inherited class based on a religion that limits your occupation. It also restricts your association with members of other castes.

(9/7 p. 1 T3)

Similar conversations were held with other related words, such as *multitude*, *epic*, and *sacred*. Although these words can be classified as general utility words of high frequency, they were also embedded in the overall conceptual framework for understanding caste systems. Students needed to understand this term before reading the assigned story of "Yudhisthir and His Brothers." As discussion leader, Debbie highlighted these terms in finely crafted ways that kept discussions fluid and centered around conceptual word learning instead of isolated definitions. In essence, these direct questions about specific vocabulary were another dimension of learning that evolved from an ancillary focus on word meaning.

In a subsequent discussion about "Scarface," a short story about a hero from the Native American culture, Debbie clarified and reinforced meanings of other domain-specific terms. She also made intertextual connections with previously read stories about heroes from other cultures.
Teacher: One thing that I wanted to clarify with you is the meaning of the term sand hills. What were the sand hills?

Cathy: It was like...death.
Teacher: It represented death or wherever they went when they died. Do you remember where the people went when they died in the story about Yudhisthir?

Leslie: The desert.
Teacher: The desert. Do you remember what that was called? The city of the what?

Jack: Good, Jack. The city of the gods. One calls it the city of the gods; the other calls it sand hills. Someone yesterday suggested that they called it the sand hills because they bury them under the ground and so it looked like a hill of sand. I don't know if that's why they called it that or not. But that was a good interpretation.

(9/20 p. 5 T5)

Direct questioning about high frequency words used by mature language users were also evident in another reading selection in the heroes unit. In an excerpt from an article in Reader's Digest, Debbie drew attention to the word defaced in the following sentence: "Less than 48 hours after the home was defaced by vandals, there was nary a trace of the cowardly exploit."

Teacher: We want to look at the word deface. What does it mean?

Heath: Torn down.
Teacher: It could be torn down but in this case it wasn't torn all the way down.

Steven: Changed...
Teacher: Changed. It was changed in a bad way. It was damaged by vandals. What are vandals?

Sally: Bad people.
Chad: People that go around destroying...
Teacher: They can tear things up or they can spray paint on them....and that is what they did in this case. (9/26 p. 9 T6)
Again, the above examples indicate that questions about specific words emerged through the course of class discussions and were not considered to be premeditated. The decision about what terms to highlight became apparent as the teacher intuitively realized what would help to extend and illuminate comprehension. Thus, the ancillary focus on certain vocabulary became a springboard for further conceptual understanding about the topic at hand.

As I examined the types of student responses elicited by Debbie's use of direct questioning about vocabulary words, I found interesting patterns of interaction. For the most part, student responses were either single words or phrases while Debbie's explanations were more lengthy and descriptive. For example, during the vocabulary lesson for the short story "The White Circle," the following excerpt about the words *hayfork* and *stationary* illustrates this observation.

Teacher: What is a *hayfork*?
Leslie: A pitchfork.
Robert: Something to pitch hay with.
Teacher: In this story there is a huge *hayfork*. Enormous. This one is generated by some kind of pulleys and ropes and so it's suspended from the ceiling in the barn and it is very sharp like a pitchfork.
Jack: What's it for?
Teacher: For moving hay and clover. If you live on a farm and they wanted to make the work easier and they had huge amounts to lift. If you just had a small amount, you could just use one by hand. But if you have tremendously heavy loads to move, they use the mechanical *hayforks*. *Stationary ladder.* One type of stationary that ends with *ery* is the kind of
paper that you write on. What does this stationary mean, Chad?

Chad: Still.

Teacher: Still. This ladder is fastened to the wall. It doesn't move. Where can you think of a stationary ladder being fixed?

Angela: It can go up to the attic. There's like a stairs there.

Teacher: Okay. It folds down and it's hooked to the ceiling.

Robert: Library.

Teacher: Good answer. Sometimes in the library.

Student: A pool. (10/25 p. 19 T15)

In another directed discussion about the vocabulary words for the short story, "Harriet Tubman: The Moses of Her People," Debbie's questions were overshadowed by her direct statements that did not invite student responses. Those which eventually emerged were once again one word or single phrase responses.

Teacher: Here are some of the words from the story that might be new to you--reaped and that means gathered as in reaping the crop. You gather in the crop. Morose that's a word that is used to describe Harriet. She was sullen and depressed. In the story she hides in a pig sty. A pig pen. The overseer is the supervisor of the slaves. She suffers from seizures. And she has attacks where she blacks out. Forthcoming means coming forward. Countenance is face. Everyone of you has a countenance. It is your face. Commissary stores--the army camp supplies. How many of you have a relative in the military?

[Several hands go up.]

Teacher: What do you get at the commissary?

Steven: Food.

Cathy: There's all sorts of stuff.

Teacher: And all sorts of stuff. You went to buy things there. In this case this was their supply depot. They didn't actually have a store but it is where they had their supplies stored. Bondage means slavery. Does anyone know what this means? Emancipation Proclamation? What does that refer to? Jill?
Jill: Is that the thing that Abraham Lincoln signed?
Teacher: And what did that paper do?
Jill: It freed the slaves. (10/5 p. 10 T10)

It may be that time restrictions limited the type of presentation Debbie used to address vocabulary words in this episode. She possibly felt driven to expose students to words in whatever way was feasible within the existing time frame for the classes. Thus, the nature of her vocabulary questions actually called for short answers because of this time restriction.

Nevertheless, Debbie sometimes used a different line of questioning to evoke in-depth responses to special words that she felt needed to be addressed in a different manner. For instance, because the short story "The White Circle," contained two scurrilous words, Debbie conducted a detailed discussion in both classes about the word profanity. In one class students related personal exposures to profane language as Debbie guided the conversation.

Teacher: Profanity is generally an expression of anger although some people get into the habit where it's just part of their everyday vocabulary. And we are not supposed to use it at school. Have you ever read books that have profanity in the book?
All: Yes.
Teacher: Why does an author put profanity in a story or a book? Lynette?
Lynette: They want to make the book more realistic.
Teacher: Is it realistic for teenagers in a book to never say a bad word or they go oh heck, oh shoot, oh darn?
All: No.
Danny: That's like my parents. They're always cussing but whenever they hear me cuss they get all mad.
Teacher: Right. They want to set a rule and then they don't abide by the rule themselves. Marian?

Marian: Sometimes it's better to, because like when I play tennis and I miss a shot or something, I used to just slam my racket into the court. And I have a friend who does that and her racket is really bent up and it's like curved and she had to stand on it to get it to go back so she could play, but ah...it's like a lot easier to just say a bad word instead of beating your racket against the court.

In a similar discussion with the other class about profanity, students' responses to the questioning remained more focused on profanity found in books students had read or were reading.

Teacher: What we need to talk about for just a moment is why would an author choose to include profanity in a book or a work of literature?

Jill: A lot of people use it. Some people want to read it.

Teacher: Sharon?

Sharon: It makes it more realistic.

Teacher: How does it make it more realistic?

Sharon: Because a lot of people talk with profanity nowadays.

Teacher: Betty?

Betty: It draws the reader in.

Teacher: How does it draw the reader in?

Betty: Well, it's interesting sometimes.

Jack: Well like in "Star Wars" that guy Luke Skywalker, when he's hanging from the ship and Darth Vader is right there and he gets his hand chopped off...I can't believe he doesn't say one bad word...[Debbie interrupts].

Teacher: You said some words there..."I can't believe"...does it make it more believable?

All: Yes.

Chad: Steven King like they have profanity and it's like an adult book. Like they wouldn't have that in a children's book.

Teacher: Right. You wouldn't expect to pick up one of these little picture books in here on display and have profanity. So it's a more adult oriented book. Andy?

Andy: My mother said that profanity shows how much anger a character has.

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Teacher: Okay. Excellent idea. It shows how much anger the character has. Bert?
Bert: I'm reading this army book and there's like a lot of profanity in it. There's tons of it.
Teacher: Okay. Some books have a lot of profanity. Steven King books tend to have way too much. Sometimes it's used for the effect, but does it lose its effect if they use too much?
All: Yes. (10/25 pp. 20-21 T15)
These two discussions about the word profanity provided a stronger framework for learning a new term than the activities described in previous excerpts. These elaborations took more time but also offered students the opportunity to actually use the word in meaningful and authentic dialogue. They actively responded to Debbie's line of questioning in ways that helped to shape their understanding and retention of the word's meaning.

Summary

Debbie related, explained, and questioned students about vocabulary during instructional episodes. These events were part of larger mastery units which encompassed other facets of reading, such as critical thinking. Students were exposed to new school-related terms, domain-specific words, and general utility words frequently known by mature language users. Learning outcomes of these instructional episodes included small incremental word learning, text clarification, exposure to unfamiliar words in both expressive and receptive language, heightened level of word consciousness, and word meaning construction.
Student Behaviors During Vocabulary Instructional Episodes

Introduction

I observed student behaviors during two major mastery units, each lasting approximately twelve weeks. In one mastery Debbie opted to keep a whole class format. In the other unit she used book discussion groups for one segment. As a result, I noted word learning behaviors across these different instructional frameworks for both classes. Debbie served as director and decision maker in whole class sessions. During discussion group sessions about books, she perceived her role as that of consultant and facilitator and therefore maintained an unobtrusive stance. She provided assistance when she felt students needed her input. A description of student behaviors in both settings will serve as a basis for understanding the nature and extent of vocabulary exposure in these mastery units. In addition, a brief description of student behaviors during the situated think aloud sessions will highlight important components of this context as a word learning opportunity. It will also serve as a link to subsequent analyses of each case study.

Student Behaviors During Whole Class Instructional Episodes

Students in both classes took their cues from the teacher. That is, their responses were directly influenced by situations set up by the teacher during class discussions.
of required readings and class discussions about specific writing assignments. A close examination of student responses during these episodes revealed several cognitive processes in use. Overall, they demonstrated engagement in activating prior knowledge when they used words recently discussed in class. They also displayed unprompted use of general utility words and domain-specific words. They made connections by defining terms in their own words, using examples to define words, relating words to other languages, and engaging in word play. Furthermore, students asked questions about certain words when they were confused about the meaning. Figure 4.5 on page 170 provides an outline of students' reactions to instructional episodes.

Activating Prior Knowledge and Background Experiences. During class discussions, students used words mentioned in previous class events, unsolicited words described as general utility words used by mature language users, domain-specific words, and school-related words. During the heroes unit, the focal point was the heroes characteristic chart which was created by class members. The descriptive words listed on the chart were continually referred to in discussions across all six required readings. Furthermore, each successive reading of a story brought forth more words. As a result, students frequently used these words in both their talking and writing.
### Student Reactions

<table>
<thead>
<tr>
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<td>Previous knowledge</td>
<td>School-related terminology</td>
<td>Sounds of words</td>
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<td>Previous classroom experiences</td>
<td>Variations in word usage</td>
<td>Historical events</td>
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<td></td>
<td>Word play</td>
<td>Domain-specific words</td>
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<td></td>
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<td>General utility words</td>
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<tr>
<td></td>
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<td>Examples</td>
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</tbody>
</table>

#### Figure 4.5: Specific Student Behaviors During Teacher-Directed Vocabulary Instructional Episodes

For example, in reference to the short story, "The Empire Strikes Back," students and the teacher discussed which characteristics Luke Skywalker possessed.

Teacher: So he lacked determination.
Jill: No. He lacked confidence.
Teacher: He lacked confidence and determination? Okay. I want to talk about the confidence issue.
Steven: I think he had confidence and determination in the end.
Teacher: Focus on determination not confidence.
Steven: Okay. He had determination in the end just like the bravery and the loyalty because he went to help his friends anyway.

(10/3 p. 6 T9)

Words such as confidence, determination, self-reliance, achievement, loyalty, and related derivations were used
freely by students because they had been highlighted repeatedly across all hero stories. This repetition and continual referral to all descriptors on the heroes chart offered students rich opportunities through multiple exposures to use the terms in meaningful and functional ways. Furthermore, the use of the terms extended into their writing. At the end of the unit, they wrote an essay describing a personal hero. The following excerpts indicate that students used descriptive words previously discussed in class.

I think a hero is someone who's caring and also shows leadership in whatever he or she tries to conquer. A hero is also persistent in his or her task. Some of the characteristics that I value in a hero is the leadership and skill that a hero shows. I also value the persistency or the refusing to give up until he or she conquers the task. (Brady)

Harriet Tubman was a very smart person. She was very skillful. She was not always obedient to others. What makes her so admirable is that she led so many people out of slavery...She is strong, loyal, and confident. (Angela)

My hero is my dad...Both his parents were dead when he was seventeen so he had to learn self-reliance and responsibility at a very young age...and my dad and the heroes share other character traits such as honesty, confidence, and dedication and the ability to stay cool under pressure...There would be no inspirations and no dreams without heroes. (Marian)

Students experienced multiple exposures of words describing heroes. Therefore, the use of these terms in their writing appeared to be a natural progression from previous opportunities to listen, speak, and read about words that described different people from different
cultures. This integrated approach enhanced and reinforced students' word knowledge.

Some students also demonstrated the extent to which their speaking vocabularies included more sophisticated words used by mature language users. For example, as the teacher and students talked about Luke's decision not to continue with Yoda's training in the "Empire Strikes Back," one student compared Yoda to a guru. In another discussion about heroes who show confidence, the teacher made connections to heroes of today which, in turn, activated another student's knowledge of quadriplegic.

Teacher: You have to have confidence in your ability. I have seen people and some of you have too, such as Joanie Erickson who was a skier and had...I think she was an Olympic skier. She had a terrible accident and what happened to her?

Sharon: She like got hurt and ended in a wheelchair or something like that.

David: Quadriplegic.

Teacher: What's a quadriplegic?

David: You are like paralyzed from the neck down. You can't move. You can't do anything. You need other people to help you.

(10/3 p. 11 T9)

Background experiences which surfaced during class discussions also called to mind specific terminology. In reference to the hero story about Harriet Tubman, the teacher led a prereading discussion about the Civil War and states' rights which, in turn, led to ways in which federal laws affect us today. As a result, Marian made a connection with a previous experience on an airplane.
It's like on an airplane. They all have all this paper that says like welcome aboard. If something happens this is what we do in an emergency. And it says that it is a federal requirement that you can't tamper with...federal law prohibits tampering with, disabling, or destroying this property or even smoking in lavatories. So I have been on airplanes and I go along with this law. (10/5 p. 3 T10)

Marian's use of these words stemmed from the discussion topic and the associations she made with her past experiences on an airplane.

Domain-specific words also emerged during the course of classroom talk. The following excerpts from the prereading discussion about Harriet Tubman indicate how students' choices of vocabulary provide evidence of what and how they related to the topic at hand.

Teacher: I want to find out what you know about several things. What do you know about Harriet Tubman? What do you know about the Civil War? And what do you know briefly about slavery? William?
William: She like saved like a couple of people's lives.

Teacher: A couple of people? Yes?
Jack: She led the Underground Railroad.
Mary: She is very famous. She led hundreds and thousands of blacks to Canada.
Teacher: That's pretty hard and there were people looking for the slaves. When they escaped, they would be out looking for them. Someone just made a comment. What is it that you said?
Bert: Bounty hunters.
Teacher: Yes, and what were the bounty hunters doing?
Bert: They were paid to go find people.

Asking Questions About Vocabulary. Student use of school-related terminology was a commonplace occurrence especially when the teacher explained a written assignment. Students spoke freely of essays, biographical information,
seminars, and advisory time. Many of the terms surfaced especially when students questioned terms. For example, as the teacher explained the heroes essay assignment, Sandra asked for clarification about biographical information.

Teacher: So in paragraph #3 you will write biographical information about the hero.
Sandra: What do you mean by biographical information?
Teacher: Ah...what biographical information do we have about Harriet Tubman? What is a biography?
Jack: Story about the person.
Teacher: Right. I don't want the whole story of this person's life but some things in your past affect your future. For example, the fact that Harriet was born into slavery...that affected her future and every day of her life. So if we left out the whole slavery issue, would there be a Harriet Tubman story?
All: No. (10/10 pp. 8-9 T11)

Students also questioned general utility words.

Cathy: What about intelligence? Do you mean like in school? Because she [Harriet Tubman] was intelligent because she knew like which way to go.
Teacher: So there are different types of intelligence. (10/10 p. 4 T11)

In her analysis of the hero characteristics chart, Cathy had specific questions about the characteristics, because she began looking closely at how some the terms, such as intelligence, could mean different things in varying situations.

While students were reading "The White Circle," Sharon questioned the word assigns in the sentence "The tree is yours in fee simple to bargain, sell, and convey, or to keep and nurture and eventually hand down to your heirs or assigns forever unto eternity."
Sharon: What does he mean by his assigns?
Teacher: Okay. What do you think he means? That's a good question. What are heirs?
  All: Your children.
Teacher: Your children. It could be your children. Or sometimes...what do heirs receive?
Heath: What you own. Like if somebody says you are the heir to the throne, he's like the next person to be king.
Teacher: You said something earlier. You said something about inheritance. An heir inherits something. No he says you can hand this down to your heirs or assigns. People that you want to give it to forever...for eternity. (10/26 p. 6 T16)

**Making Connections.** As students mobilized their conceptual knowledge and accompanying vocabulary about certain topics, they sometimes made connections by defining terms in their own words. For instance, Michael always thought that the Underground Railroad was the forerunner of today's subway. Stephanie made connections to another language when she stated that Negro meant black in Spanish. Moreover, Steven made connections using the sound of the word in the following conversation about Langston Hughes.

  Teacher: What was so unusual about a black man having his poetry published in 1926? Michael?
  Michael: Wasn't there still slavery?
  Teacher: There wasn't slavery but what was there? Steven?
  Steven: Something like immigration.
  Brady: You mean segregation. (10/5 p. 12 T10)

During Socratic practice with "The Pledge of Allegiance," an interesting discussion about the meaning of the word justice enabled students to make connections with what they knew as they shared examples of their idea of justice.
Teacher: All right boys and girls. Steven wants to talk about justice.

Steven: It's laws.

Teacher: Heath?

Heath: Justice is like what you deserve. If somebody kills another person and they deserve to pay the penalty for it. Something if like if somebody hurts you, then it's you know they should pay the consequences.

Joanie: It's like fairness for everybody. So everybody will have equal rights.

Teacher: Fairness for everybody. At school through all the years I've been teaching I've had students say that some teachers are not fair. I try to be fair but what does fair mean? Steven?

Steven: Like uh...equal...the same thing. Like equals the same person.

Teacher: Can you treat every person exactly the same? All: No.

Chad: I think justice is in the eye of the beholder.

Teacher: I understand what you are saying. The person who is making the judgment and saying whether it's fair or unfair...it's in their eyes.

Janine: I was going to say what you were saying about is fair and equal the same or something like that. But it wouldn't be really fair if like somebody who murders somebody got the exact same punishment as somebody who stole a piece of gum.

Teacher: Okay. So should the punishment fit the crime?

All: Yes.

Teacher: Someone this morning...said that in some countries the penalty for theft is to cut your hand off. They used to do that a long time ago.

Heath: They still do in Iran and Iraq.

Teacher: Where did you hear that?

Heath: Because my uncle was in Desert Storm and he went to Saudi Arabia and he told us that's true.

Teacher: That's pretty severe punishment, but will it keep them from stealing again? In our country that's cruel and unusual punishment. Jill?

Jill: In social studies last year....in like the early years...

Teacher: Medieval times?

Jill: Yes and the punishment would be exactly what
you did to them. Like if you killed a person, then you get killed.
(11/2 pp. 24-26 T19)

This excerpt illustrates how students made important connections about the concept of justice in terms of what they already knew about fairness and equality for all. They tapped into schemas about universal sayings ("eye for an eye"), stories from relatives, and lessons from past history classes. They used whatever was available in their knowledge base to contribute to the group effort of exploring a more in-depth look of the meaning of the word justice. Resulting social interactions among the teacher and students provided fertile ground for the enhancement of word learning through relevant and meaningful connections with prior knowledge and past experiences.

As students activated, connected, and questioned vocabulary during the course of class discussions, they also experienced those serendipitous moments when they played with words. One student caught the attention of others when he used the word "wiseness" instead of wisdom. Subsequent chuckles and smiles indicated that students appreciated and liked this word. These episodes with words heightened their attention and promoted inquiry about new words.

Student Behaviors in Book Discussion Groups

As part of the multicultural mastery unit that Debbie initiated at the beginning of the second semester, students
became participants in specific book discussion groups. Using multiple copies of five multicultural trade books, Debbie placed students in groups based upon their first and second choices. The books were the following:

- *Bearstone* by Will Hobbs
- *Children of the River* by Linda Crew
- *Dragonwings* by Lawrence Yep
- *Jemmy* by Jon Hassler
- *Roll of Thunder, Hear My Cry* by Mildred D. Taylor

Debbie modeled these discussion groups after the literature circles described by Harvey Daniels (1994). She defined and discussed the roles of discussion director, literary luminary, connector, summarizer, vocabulary enricher, and process checker. The following description taken from *Literature Circles* was discussed with students concerning the role of vocabulary enricher:

> Your job is to be on the lookout for a few especially important words in today's reading. If you find words that are puzzling or unfamiliar, mark them while you are reading, and then later jot down their definitions, either from a dictionary or some other source. You may also run across familiar words that stand out somehow in the reading—words that are repeated a lot, used in an unusual way, or key to the meaning of the text. Mark these special words too, and be ready to point them out to the group. When your circle meets, help members find and discuss these words. (p. 82)

The groups met twice a week for approximately twelve weeks. During the first session of the week, students filled out the worksheets for their assigned roles. These worksheets were in preparation for group discussions in the second session. During the second sessions of the week, I observed and recorded student behaviors as vocabulary enrichers and
as group participants in vocabulary discussions. Figure 4.6 on page 180 illustrates these behaviors.

**Student Behaviors in the Role of Vocabulary Enricher.** I observed student behaviors as they assumed the role of vocabulary enricher during eight book discussion group sessions. Several distinctive actions, though inconsistent across groups, became evident. They represent a variety of tactics students employed based upon their own interpretation of the role of vocabulary enricher. These behaviors include the following:

1. Some vocabulary enrichers defined words before the group sessions by using their own knowledge or by referring to the dictionary.

2. Some vocabulary enrichers relied on the group to provide the definitions.

3. Several vocabulary enrichers read their definitions to the group.

4. A few vocabulary enrichers explained the words to the group.

5. Some vocabulary enrichers either read the passage containing the targeted words orally or asked other group members to read.

Students equated this role of vocabulary enricher in ways that parallel teacher behaviors. They targeted, defined, read, and explained words to the group. They even questioned the group's background knowledge about the words. When Kate served in the role of vocabulary enricher, she targeted seven words and defined them using the dictionary.
## Student Actions

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<td>Other students</td>
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<td>Brief phrases</td>
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</table>

Figure 4.6: Specific Student Behaviors During Student-Directed Group Sessions
During the group discussion, she asked each student to read the passage containing the targeted word before she read her definition. The group did not discuss the words.

When Lynette was the vocabulary enricher, she also prepared herself for the group session by consulting the dictionary for meanings of her targeted words. During group discussion time, she presented each word by reading the sentence. Then she asked if anyone wanted to comment about the word. After listening to these comments, Lynette read her definition. These actions were evident when the group discussed the word *expounding* from *Roll of Thunder, Hear My Cry* in the following passage:

"See, fellows, there's a system to getting out of work," T. J. was *expounding* as I sat down. "Jus' don't be 'round when it's got to be done. See, you should do like me." (p. 72)

Lynette pronounced the word *expounding* and then read the above sentence to the group. This discussion followed:

Lynette: Okay. Do y'all like have any guesses to what it means?
Sam: Wait where is it again?
Janelle: I'll guess what it means.
Jill: Well what is it?
Janelle: His ego is boasting and he knows exactly how to get out of working and...
Lynette: He did it with explaining. That's the definition I found. It says "state, interpret, or explain." So I thought explain was like the best one. (1/30 pp. 8-9 T31)

Discussions about other words followed this same pattern. Lynette was prepared with definitions and took the time to clarify these meanings in reference to the text. Members of this group were willing to take risks in constructing word
meanings and sharing these constructions with the group. The ways in which words were described were similar to the way Debbie defined words. Students used synonyms and brief phrases based upon dictionary definitions.

In other sessions, vocabulary enrichers found words but did not search for meanings. Rather, they chose to rely on group members to generate word meanings. In these episodes, some definitions remained at a general level of description. Examples include the word *Ute* defined as "an Indian group" and the word *irrigate* as "water your crops." Group members were satisfied with these general meanings and did not engage in any further discussion. At other times, groups would formulate and even accept inaccurate meanings for targeted words. The word *pleated* from *Children of the River* by Linda Crew illustrates this point. The word was found in the following passage:

> Now Sundara's eyes widened as Cathy and the other rally girls launched into a shimmying, hip-wiggling dance. "Oh, Kelly," she breathed. "I'm shock!" "What? Oh, I know. Except for the *pleated* skirts, they could be a bunch of strippers." (p. 36)

As vocabulary enricher, Sharon mentioned the word to the group, stated its location, but did not read the sentence. Other group members looked at the passage as the following discussion occurred:

Brad: Where is it? I didn't see it.
Jeff: Right here.
Janey: *Pleated* skirts.
Bobby: It's like plaided.
Jeff: It's like plaided.
Andy: Like a plaided shirt.
Bobby: It's like Mr. Linden's shirt. That's plaid. It's just like Mr. Linden's shirt. [Mr. Linden, the special needs teacher, was in the room at this time.]

Andy: No, it's squares.

Jeff: Plaided. That's what plaided is.

(1/31 p. 14 T31)

After this discussion, Sharon moved on to her next word. When Debbie approached the group toward the end of the session, she explained the correct meaning for *pleated*.

In general, vocabulary enrichers relied on the dictionary as well as their peers as sources of word knowledge. Some students adopted a "teacher" stance as they provided information to their groups. Others simply provided words and depended upon group members for definitions.

**Student Behaviors as Group Members.** As members of book discussion groups, students followed the lead of the vocabulary enricher in terms of the amount of discussion which emerged. When the vocabulary enricher asked for comments, students offered their ideas about targeted words as they interpreted and clarified points for others. When they interacted with each other, students generated word meanings in the form of synonyms, brief phrases, and examples. These definitions were similar to the way in which Debbie defined words for them during whole class discussions.

When Marian was vocabulary enricher, she initially shared her meaning of a word and then asked others to share
their interpretations. For example, for the word *housemother* from *Bearstone* by Will Hobbs, the group members elicited descriptions, such as "a director like the main person in orphanages," "a matron," "a foster mother," and "a person in charge of a group home." As sources of knowledge, students used their own background knowledge about *housemother* to express these meanings. As a result, the various configurations for the word reinforced and expanded their own schemas. Furthermore, the social interaction among group members stimulated discussions that produced these variations in the meaning of the word.

On several occasions, students defined words in a syntactically correct fashion. For example, when Heath looked up *precipice* in the dictionary, he was quick to use a phrase from the definition as a substitute for the word. He told group members that the word meant "a very steep or overhanging place; a hazardous situation." Then he read the sentence containing *precipice* in the following manner:

Cloyd put the smooth stone in his pocket and started back across the very steep overhanging place. (Hobbs, W. *Bearstone*, p. 16)

Group members agreed that the meaning fit the context of the sentence. This pattern of word meaning construction occurred across several book discussion groups.

On other occasions, students used multiple sources and multiple attempts to construct word meanings that satisfied
the group. For example, when Katherine served as vocabulary enricher, she targeted the word *erratically* in this passage:

> The saw didn't want to start. After dozens of attempts Cloyd made it idle *erratically*, but it cut out as soon as he tried the throttle. (Hobbs, W. *Bearstone*, p. 55)

Because the word was challenging to the group, students elicited several meaning attempts simultaneously. After David read the sentence, he used arm motions to demonstrate what he thought *erratically* meant while Terry commented that it could mean "faster." Tom thought that it could mean "odd." Katherine then offered her dictionary definition of "deviating from what is ordinary or standard." With these four attempts, group members were satisfied that they understood what the word meant. They also talked about how some words, like *erratically*, were difficult to define, because it was hard to articulate a clear meaning without using examples or physical motions.

Overall, students worked collaboratively in these group sessions to construct word meanings when the vocabulary enricher assumed a role of group facilitator rather than "teacher director." They shared their opinions and interpretations of words and listened to the ideas of others. By focusing on these student-targeted words, they had the opportunity to engage in authentic word learning experiences where they modeled their own personal strategies for their peers.
Student Behaviors During Incidental Vocabulary Learning Episodes in the Situated Think Aloud Sessions

The purpose of the situated think aloud sessions was to provide a way in which to examine the independent word learning strategies of case study participants as they encountered unfamiliar words in self-sponsored reading events. It also presented opportunities for students to learn new words. As outlined in Figure 4.7 on page 187, students responded to these sessions by selecting, activating, connecting, and demonstrating various behaviors as they transacted with unknown words.

This context gave them the opportunity to self-select personal texts and unfamiliar words as well as to demonstrate their use of independent word learning strategies. Learners activated these strategies, their prior conceptual knowledge, and their knowledge of language and texts. They made connections within the bounds of the texts and sometimes experienced extended schematic connections. In the think aloud sessions, they demonstrated their knowledge of self as learners and strategy users. Each component is addressed in the forthcoming, detailed accounts of the word learning behaviors of each case study.
## Student Actions

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### Learning Outcomes

- Mobilization of independent word learning strategies
- Self-generated meaning constructions
- Active word-learning opportunities

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**Figure 4.7**: Specific Student Behaviors and Learning Outcomes During Incidental Vocabulary Learning Episodes in Situated Think Aloud Sessions
Summary

Students' learning behaviors during vocabulary instructional episodes varied depending upon the curricular framework set up by the teacher. During whole class settings, the teacher not only made decisions about which words to emphasize, but also directed the line of inquiry about these words. Students, in turn, used their knowledge base to make connections with these terms and to question any preconceived ideas they had about the words.

Group discussions about books provided students with opportunities to engage in word learning episodes that were student-centered and student-directed. These interactions resulted in behaviors where students related, explained, connected, and questioned what they knew about these words. Thus, they had a more vested interest in what they were doing. When vocabulary enrichers assumed the role of "teacher," group members interacted in much the same way as they did during whole class sessions with the teacher. When vocabulary enrichers acted as peer facilitators, group members took a more active role in word meaning construction. Regardless of the stance of the vocabulary enrichers, these group sessions enabled students to engage in authentic word learning experiences as they shared their ideas about words with their peers.

The situated think aloud sessions served a dual purpose. It provided learners with opportunities to engage
in overt transactions with unfamiliar words. It also served as a research tool for investigating procedures and conditions under which learners mobilized word learning strategies. I will present the findings concerning each focal learner in the following sections.

Independent Word Learning Strategies of Six Focal Learners

Introduction

The findings for each case study participant are described in terms of the major components outlined in the classification system (refer to Appendix B on page 375). First, I will present the strategies each learner used and describe the conditions under which they activated specific techniques. Then, I will address the kinds of schematic connections learners attempted as they constructed meanings for targeted words. Finally, I will discuss the word meanings they personally generated before recapitulating the word learning behaviors of each case study participant.
As an avid, proficient reader, Marian read books that were not typical of average seventh graders. She selected several challenging texts this year, such as The Three Musketeers and The Scarlet Letter. She demonstrated sophisticated literacy behaviors during every observed contextual setting in the reading program.

The profile of Marian as a word learner emerged from data collected in the questionnaire, the reading attitude survey, initial and final interviews, and the situated think aloud sessions. Marian understood the value of having a rich vocabulary base and felt that learning new words was important. "If you didn't know new words, you'd be using the same vocabulary you learned when you learned how to talk." She believed that people learn new words by reading, by listening, and by asking others to clarify the meaning of unfamiliar vocabulary. In terms of the role of teachers in word learning, Marian felt they are helpful when she asks them what a word means. Yet, she was unsure that prereading discussions about vocabulary words helped her with subsequent assigned readings.

Marian's level of word consciousness was definitely high in that she liked to learn new words and had a healthy curiosity about unfamiliar terms. Possessing a strong metacognitive awareness of how she learns new words, Marian was quick to explain that she used the dictionary.
frequently, examined the content of the text passage in which the word was located, questioned herself about words, and asked others for help. She believed that reading challenging books helps her to learn more words.

A careful scrutiny of Marian's actions during the ten situated think alouds uncovered several revealing behaviors of how she strategically made sense of unfamiliar words. These behaviors are described in terms of word learning strategies, schematic connections, and generated word meanings. Marian targeted a total of ten words during the course of the study. Out of the ten situated think alouds, she found no words in three sessions. Therefore, the following interpretations of her strategic word learning behaviors are based upon seven sessions which produced ten student-targeted words.

Word Learning Strategies

Content Analysis. Of the ten words Marian targeted, she used contextual aid as her initial word learning strategy with nine of them. With seven of these nine words, she went beyond sentence context to explore passage content to help her construct word meanings. I noted that the use of passage content was accompanied by the following conditions:

1. Marian used other word learning strategies along with the passage content.
2. Words for which she used passage content were unfamiliar words representing familiar concepts.

3. Meaning transformations occurred with three words where generated meanings fit the overall context of the passage, even though some were incorrect.

4. Marian relied on passage content before the word more than content after the word.

As Marian explored passage content, she employed other word learning strategies to help her construct meaning. For example, with the word tenement from Ray Bradbury's *The October Country*, Marian combined context analysis with picture clues and structural analysis (refer to Appendix A on page 351).

Marian: ...So I would think that would be where the person that they're talking about lives maybe.

Researcher: What gives you that clue?

Marian: Well, it says "Wait till you see her" and then also like a tenant...

Researcher: What's a tenant?

Marian: Someone who lives somewhere...There's another way to confirm it...the picture!

Researcher: The picture?

Marian: The picture on this page...of the apartment type thing. (11/6 pp. 1-2 T20)

Marian also combined passage content with the use of key words and phrases. With the word *diurnal* from *The Three Musketeers* by Alexandre Dumas, she targeted the key word "court" in the sentence context and proceeded to use this strategy in conjunction with passage content (refer to Appendix A on page 351).

The sentence says, "Thus he never failed to pay his diurnal court to her; and the self-satisfied Gascon was convinced that sooner or later she could not fail to respond." It looks like he's like maybe he always comes to see her. He pays like his court...court is like he's courting her so like usual. He always
comes to see her. He's always trying to find or see her...so it's usually or regular. (12/5 p. 3 T24)

Another strategy Marian mobilized in conjunction with passage content was the use of a dictionary. It was not unusual for Marian to consult a dictionary, since she frequently employed this tactic at home and school. She used this reference book while studying the passage content of five words. She did so to confirm her predictions for those words which she felt some degree of uncertainty.

Examining the passage content words from another perspective, I noted that all were unfamiliar words representing familiar concepts. For the word screw, Marian knew common meanings but not the little-known meaning of "horse." She encountered the word screw as she was reading The Crystal Cave by Mary Stewart (refer to Appendix A on page 350). Because sentence context did not provide enough information for Marian to construct a legitimate meaning for the word, she initially chose to read the next sentence which still did not help. As a result, she then revisited previous content to search for clues before realizing that the character had just bought a horse.

So I knew he was talking about the horse, but I have never really seen someone refer to it as a screw or an old screw. All I've heard of screw is like in a mechanical thing or maybe like a screwy person. It's kind of crazy or strange, but I've never seen it describing a horse. (10/17 p. 2 T12)

Because Marian broadened her search of text to include previously mentioned information, she was able to construct a different meaning that fit the story. Her awareness that
sentence context did not confirm her expectations of screw enabled her to change her strategy. Other unfamiliar words representing familiar concepts included tenement, valise, and diurnal.

With three passage content words, Marian produced several meaning transformations where generated meanings fit the overall context of the passage. As she talked through her constructions, she sampled several meanings that made sense but were incorrect. For example, with the word valise from The Three Musketeers by Alexandre Dumas, Marian initially claimed it was "a thing you carry a drink in." Then she considered that it was just "a thing you carry something in." After revisiting the previous passage content, she speculated that valise was "a container a soldier carries his drink in." Because of her uncertainty, she consulted a dictionary and then concluded that it was "a traveling bag." Similar word meaning transformations occurred with the word tenement and the word diurnal (refer to Appendix A on page 351).

Marian's referrals to previous passage content occurred more frequently than did her referrals to passages after the targeted word. I noticed that she referred to what occurred before the word when previous context offered sufficient background information to help her construct a legitimate meaning for the targeted word. With the word valise,
however, she used the before and after context since both areas provided important clues.

Marian used sentence content as her initial strategy with five words. I noted the following conditions which were associated with her use of sentence content:

1. Marian used sentence content along with other strategies.

2. Marian stayed within the bounds of sentence content not only when sentences were conceptually loaded, but also when she could make extended schematic connections.

3. Marian generated correct word meanings that were approximations which fit the sentence context.

4. The words were unfamiliar words which represented familiar concepts.

5. For conceptually loaded sentences with subtle or minimal word meaning clues, Marian constructed general meanings for targeted words.

Marian did not use sentence content in isolation. She employed other strategies including key words and phrases within the content as well as word appearance, structural analysis, and reference sources.

The conceptual load of the sentence and the ways in which targeted words were used in the sentence determined the extent to which Marian utilized sentence content as a word meaning source. For example, she stayed within the bounds of the following sentence containing the targeted word *aloof* in *The Crystal Cave* by Mary Stewart:

> It was doubtful whether anyone would have recognized me as the runaway of five years ago and certainly the captain gave no sign, but I held myself aloof. (p. 187)
Although this sentence contained important information, it did not provide enough clues to help Marian formulate a correct meaning. She understood the character's dilemma, since she was familiar with the idea that runaways did not want to be recognized. As a result, she associated *aloof* with "being careful and apprehensive," because that fit the context of the sentence. Her word meaning construction made sense to her even though it did not parallel the author's use of *aloof*.

As Marian utilized passage content in her exploration of the word *diurnal* in *The Three Musketeers* by Alexandre Dumas (refer to Appendix A on page 351), she also spent time analyzing the sentence where she highlighted key words. Again the sentence was contextually rich but offered only minimal clues for the meaning of *diurnal*, an unfamiliar word representing a familiar context. Although words such as *diurnal* and *conglomerate* (refer to Appendix A on pages 351 and 352) were found in conceptually loaded sentences that contained minimal clues for these words, Marian utilized sentence content to formulate generalized word meanings. These approximations served her well in that the meanings made sense within the context even though they were not precise meanings.

In sum, Marian used content analysis as her initial strategy with the majority of words she targeted during the situated think alouds. She demonstrated ease in pulling
ideas from sentence and passage context as she tried to make sense of words. The use of this independent word learning strategy in conjunction with other strategies helped her formulate content-specific approximations for unfamiliar words representing familiar concepts. Whether she focused on sentence content or extended to passage content, Marian relied on specific as well as generalized word meaning constructions to keep the flow of reading intact.

**Word Level Analysis.** When Marian focused on the word itself, she attended to word appearance in general and to meaningful parts of the word. Marian noted the appearance of a word when it reminded her of other similarly spelled terms. For example, with the phrase *ides of April* in *The Crystal Cave* by Mary Stewart, Marian made a quick schematic connection to the "ides of March," a term she knew referred to the fifteenth of March. Although she could not remember details of this term, she was able to make a legitimate association with the *ides of April*. In this episode, word appearance served as an effective strategy in triggering appropriate connections with existing knowledge.

Marian focused on word parts as she considered "tenant" for her constructed meaning of the word *tenement* in Ray Bradbury's *The October Country*. She used structural analysis to figure out that "a multinational conglomerate" referred to a company representing many nations in Tony
Hillerman's *A Thief of Time* (refer to Appendix A on page 352).

Marian: ...she's talking about Davidson-Bart so it's a multinational conglomerate...a company that's two nations or more than one nation...maybe.

Researcher: Why do you say that?
Marian: Because it's multinational or national. So multi- means more or something or more than one. And then national or nation and so conglomerate I guess it would be a company or something.

(1/30 p. 6 T31)

I noted that Marian's use of structural analysis did not serve her well as she tried to make sense of falsetto in the short story, "The White Circle," by John Clayton. She mentioned that because it had "false" in it, it could refer to a "false meaning." It may be that this strategy limited her actions, because she did not activate other techniques to help her with the meaning.

Nevertheless, Marian's used these word level strategies along with other techniques. The only exception to this was for *ides of April* where her extended schematic connection to "ides of March" enabled her to make a valid word meaning construction without mobilizing other strategies. Thus, word level analysis functioned well for Marian as part of her repertoire of independent word learning strategies.

**Outside Sources.** On several occasions, Marian mentioned that she frequently used the dictionary to help her with unfamiliar words. This strategy was reinforced at home where her parents modeled and encouraged her to use
reference books. She even carried around a little pocket dictionary. During the ten situated think alouds, Marian referred to a dictionary for five words. Her purpose was to confirm her personal word meaning constructions for targeted words. I noted that for each of these words she had created global meanings that were correct to a point. For example, with the word *valise* in *The Three Musketeers* by Alexandre Dumas, Marian felt that it was "a thing to carry a drink in." Because she was uncertain about this meaning, she looked it up and then commented, "It's a traveling bag that does carry something, but it doesn't carry a drink. It just carries stuff."

When Marian used the dictionary to satisfy her curiosity about the word *conglomerate* in Tony Hillerman's *A Thief of Time*, I noticed that she was confused with the definition about "made of diverse parts; rock composed of rounded fragments varying from small pebbles to large boulders in a cement." She did not pay attention to the last definition about "a diverse corporation." Instead, she focused on "diverse" as a key word in the definition she read and then proceeded to confirm her original notion that *conglomerate* was a company made up of different sections or different nations. Interestingly enough, she applied the key word strategy to her reading of the dictionary definition. Overall, Marian used the dictionary often and wisely as an important independent word learning strategy.
only after she had tried other methods of making sense of unfamiliar words. The dictionary was never her initial strategy during the think aloud sessions.

Schematic Connections

As Marian mobilized her independent word learning strategies to figure out meanings of unfamiliar words, she triggered schematic connections with text content, the word itself, and any intertextual links that surfaced from encounters with unknown words. During ten sessions, her schematic connections remained within text boundaries for half the words. For the other half, she made extended connections beyond the text to related schemas which included other words, word parts, examples, and other references.

These connections cut across all word learning strategies and set parameters for Marian's word meaning constructions. For example, with the word *aphorisms* in *A Thief of Time* by Tony Hillerman, Marian ventured beyond the text by offering her own example of the term. She stated that it was like "what goes up must come down." This extended connection enabled her to perceive the word in a legitimate manner. In addition, Marian made extensions to known affixes and roots as she used structural analysis for such words as *tenement* and *falsetto*. Furthermore, she had some prior understanding of the word *poniard* in *The Three
Musketeers by Alexandre Dumas, because she remembered the dagger in the movie she had previously seen. In sum, Marian made whatever schematic connections were available to her during each encounter with these unfamiliar words.

**Generated Word Meanings**

Marian constructed specific, legitimate word meanings for five of the ten words she targeted during the situated think alouds. For the remaining words, she either constructed inaccurate meanings or generalized meanings. These definitions emerged before she referred to a dictionary. In sessions where she consulted the dictionary, she either confirmed her own personal word meaning constructions or she revamped them to fit the dictionary definition. Examples of generalized meanings include "false meaning" for falsetto, "company" for conglomerate, "regular" for diurnal, and "knife" for poniard.

As Marian talked through her word meaning constructions, she changed her hypotheses for valise and diurnal in The Three Musketeers by Alexandre Dumas. When I prompted her to give reasons for her word meaning constructions, Marian would continue to revise and transform the meanings. With the word valise she initially claimed it was "a thing you carry a drink in." Then she felt that it was just "a thing to carry something in." After that Marian extended this meaning to "a container a soldier
carries his drink in." Finally, after using the dictionary, she settled for "a traveling bag." For the word diurnal, she began with "regular or usual" and then considered that it might mean "secret." After using the dictionary, she felt that the meaning of "daily" meant the same as her choice of "regular." It may be that my questions, which prompted Marian to talk through her constructions to justify her responses, resulted in these meaning transformations.

I noted that in some instances Marian's word meaning constructions were actually syntactically correct synonyms or phrases. In other words, her definitions fit the syntax of targeted sentences regardless if meaning was kept intact. For example, she defined the following words in such a manner that her constructions could be substituted for the targeted words without changing sentence structure: "horse" for screw, "regular" for diurnal, "knife" for poniard, and "company" for conglomerate (refer to Appendix A on pages 350 through 352).

Summary

As an avid and proficient reader, Marian used a variety of independent word learning strategies in ways that helped her sustain meaning during personal reading. Not only was she able to use independent word learning strategies in a strategic manner, she also possessed procedural knowledge which was evident in her strong metacognitive awareness of
these strategies (Paris, et al., 1994). This knowledge base enabled her to take risks while constructing word meanings.

Another dimension of learning embedded within Marian's word learning framework deals with conditions under which she strategically applied specific behaviors to help her understand unknown words (Paris et al., 1994). The "when" and the "why" Marian selected word learning strategies depended upon her existing schematic connections as well as the nature of text content.

Marian's predominant initial strategy was to examine sentence and passage content of the text as she explored meanings of unfamiliar words that actually represented familiar concepts. Her text-bound and extended schematic connections helped her to derive both specific and generalized meanings for targeted words. Because Marian's level of word consciousness was high, she took advantage of the moment to continually learn new words as she encountered them in her personal reading. This word awareness coupled with her selection of vocabulary rich books created an environment in which her word learning could continue to grow and develop.
Lynette

Introduction

As a mature language user, Lynette exhibited a keen interest in reading and solid literacy behaviors. Although a strategic reader, she selected popular books that did not challenge her literacy capabilities. Some selections included *Shiloh* by Phyllis Reynolds Naylor and *Halloween Night* by R. L. Stine.

As a word learner, Lynette believed in the importance of learning new words and felt that "if you have to think about a lot of new words as you're reading, you won't enjoy the book." According to Lynette, sources for learning new words included listening to others, reading books, and conducting research for a project. Teachers were helpful when they talked about new words and wrote definitions on the board. In terms of her own independent word learning strategies, Lynette used several strategies. She acknowledged the fact that she rarely used the dictionary since it was too time consuming. Her preference was to use contextual clues to help her figure out unfamiliar words and to skip words that seemed unimportant to the gist of the story. Overall, Lynette exhibited a moderate interest and a pragmatic attitude about learning new words. When asked if she found learning new words interesting, Lynette replied in the following manner:

It depends on the word. Like if it's a big word and it would never really apply to my life, I could usually care less about it because I don't need to use it in my life for anything like that. But if it is like an every day word or something, once I find the meaning to
During the situated think alouds, Lynette used several important strategies to help her construct meaning for unfamiliar words. With the twenty-three words she targeted during ten sessions, Lynette demonstrated significant word learning behaviors that warranted close scrutiny.

**Word Learning Strategies**

**Content Analysis.** Lynette used contextual analysis as her initial word learning strategy for all twenty-three targeted words. She relied on passage content with thirteen words and focused mainly on sentence content for ten words. I noted that her use of passage content occurred under the following conditions:

1. Targeted sentences offered limited clues to word meaning.
2. Passage content was used in conjunction with other strategies.
3. Lynette relied on passage content before the word more than content after the word.
4. Partial word knowledge helped Lynette to generate correct meanings.
5. The words for which Lynette used passage content were unfamiliar words representing familiar concepts.

Lynette's use of passage content analysis frequently occurred when sentences containing targeted words provided minimal word meaning clues. The following sentences
exemplify this point for the words menacing, soulful, and gait:

Brenda took a few steps toward him, her expression menacing. (Stine, R. L. Halloween Night, p. 41)

He gave this soulful look, the way he always did right before he kissed her. (Clark, C., My So-Called Life, p. 152)

There was in the easy fluid gait of the shorter man a familiarity that made me gasp. (Taylor, M. Roll of Thunder, Hear My Cry, p. 33)

Because of the minimal clues provided by such sentences, Lynette ventured beyond this point to find help in the surrounding text.

In conjunction with passage content analysis, Lynette employed other word learning strategies including word appearance and pronunciation, use of key words and phrases, and outside sources. For the word soulful in C. Clark's My So-Called Life, Lynette examined word structure initially and considered how "soul" could help her define soulfully. For the word quavery in Shiloh by Phyllis Reynolds Naylor, Lynette tried to make connections with the word "quivery" because of its similar appearance and pronunciation. Lynette also mobilized key words as she examined passage content. In Mildred Taylor's Roll of Thunder, Hear My Cry (refer to Appendix A on page 354), Lynette constructed a meaning for the word sinewy by focusing on the adjacent word "bony." Furthermore, Lynette referred to the dictionary for words that were totally unfamiliar, such as gait and hamlet.
However, Lynette's use of the dictionary was not a frequent strategy employed during the situated think alouds. Lynette made references to previous passage content more often than she did to passages after targeted words. On two occasions when she referred to content before and after the word, I noticed that passages for both the word quavery in Shiloh by Phyllis Reynolds Naylor and the word triumph in Halloween Night by R. L. Stine were sparse in terms of conceptual load (refer to Appendix A on page 353). By widening her search for clues, Lynette was able to generate correct word meanings.

In four separate and unrelated word learning episodes, I noted an interesting similarity. Lynette used passage content after examining the sentence as a way to rationalize and negotiate word meaning constructions if they fit the overall context. For example, with the word hamlet in The Car by Gary Paulsen, Lynette encountered this word twice on the same page.

It was to be a normal strike mission. Another hamlet, another set of leaders to take out—sanction, neutralize, terminate with extreme prejudice. All names for the same thing—to kill....Paddle up the small stream to the hamlet, find the two targets, end them, and canoe back to the patrol boat. (p. 4)

Within the context of the first sentence, she felt that hamlet could refer to "a leader or someone powerful." Then, as she read the word again in the following paragraph, she changed her mind and thought that it could have something to do with "where the leaders are." On a more specific level,
she entertained the idea that hamlet could be a "dock or boathouse" but realized that this meaning did not fit the first sentence. After consulting the dictionary, Lynette used the phrase "a small village" to clarify the meaning of hamlet in both sentences.

By the same token, Lynette negotiated word meanings for gait and sinewy in Roll of Thunder, Hear My Cry by Mildred Taylor, when she considered how the character's situation justified her word meaning constructions (refer to Appendix A on page 354). In doing so, she moved from sentence to passage and back to sentence as she weighed the feasibility of her ideas. However, as she maneuvered her way from sentence to passage with the word donned in the same book, Lynette did not attend to the passage in a critical manner and thus constructed the opposite meaning for this word (refer to Appendix A on page 355).

Lynette admitted that she had some knowledge of several words, such as radiate, triumph, and soulful. This partial knowledge served her well as she used passage content to general correct and specific word meanings. However, most of the words for which she used passage content were unfamiliar words representing known concepts. Examples include gait, lynched, and chiffonier (refer to Appendix A on page 354).

Sentence content was an important word learning strategy for Lynette. She stayed within these boundaries
for ten of the twenty-three targeted words. I noted the following conditions associated with sentence content as the major strategy:

1. Lynette used sentence content with other strategies.

2. Lynette stayed within the boundaries of the sentence content when sentences were conceptually loaded yet offered only subtle word meaning clues.

3. Lynette generated both correct and incorrect word meanings where incorrect word meanings made sense within the overall context of the sentence.

4. Although the words were unfamiliar, they represented familiar concepts.

5. Lynette changed word meanings several times and eliminated possibilities as she considered her expectations of how authors write texts.

Lynette used sentence content along with various other strategies including structural analysis, sound of the word, and key words and phrases. With the word resiliency in Roll of Thunder, Hear My Cry by Mildred Taylor (refer to Appendix A on page 355), Lynette made a connection to the word "resilient" yet admitted not having a full understanding of the word. In the same book (refer to Appendix A on page 354), she targeted the word fibrous and entertained the idea that it might have something to do with "fabric" because they sounded alike. Moreover, key words were important as Lynette constructed meanings for such words as awning, chiffonier, and flippantly.

Lynette stayed within the boundaries of sentence content for many targeted words where sentences were
conceptually loaded yet offered only subtle word meaning clues. As a result, she not only generated correct word meanings but also incorrect word meanings that made sense within the overall sentence content. For example, in the following sentence from *Roll of Thunder, Hear My Cry* by Mildred Taylor, she constructed an approximate meaning for *flippantly* when she claimed that it meant "carelessly."

We groaned.
"Jus' ole Harlan," said T. J. *flippantly* as the expensive car rounded a curve and disappeared, then he and Clause started down the bank. (p. 47)

Although "carelessly" fit the general sense of the sentence, Lynette's did not capture the essential meaning of *flippantly*. Another example of an inaccurate word meaning construction occurred with the word *sinewy* from the same book.

"She was tawny-colored, thin and *sinewy*, with delicate features in a strong-jawed face, and though almost as tall as Big Ma, she seemed somewhat dwarfed beside her." (p. 33)

In this instance, Lynette worked within the syntax of this sentence to create the possible meaning of "bony" since "thin and bony" was a familiar phrase to her. Although the sentence was rich in concepts, it did not provide enough contextual aid to help Lynette formulate a more precise meaning for *sinewy*.

Some of Lynette's word meaning constructions evolved from several meaning transformations, especially when she used her expectations of how authors write texts. In other words, she would eliminate word meaning possibilities after
considering that "the author wouldn't do it that way." For example, the word fibrous in the following sentence illustrates this point.

"Ah, Big Ma, I ain't gonna fall," I scoffed, then climbed onto the next strong spike and reached for a fibrous puff at the top of the tall cotton stalk. (Taylor, M. Roll of Thunder, Hear My Cry, p. 32)

Lynette commented that it could mean the color "white" but then discounted this idea, because she claimed that "there's usually not a describing word for like...like a color or something. They [the authors] would probably just put the white puff or something." At this point, Lynette was relying on her expectations about the way authors write and her knowledge of text language to help her eliminate improbable meanings.

The word ornate in the following sentence provides another illustration of how Lynette considered several word meaning possibilities and eliminated improbable ones based upon the actions of the author:

The furniture, a mixture of Logan-crafted walnut and oak, included a walnut bed whose ornate headboard rose halfway up the wall toward the high ceiling, a grand chiffonier with a floor-length mirror, a large rolltop desk which had once been Grandpa's but now belonged to Mama, and the four oak chairs, two of them rockers, which Grandpa had made for Big Ma as a wedding present. (Taylor, M. Roll of Thunder, Hear My Cry, p. 36)

First of all, Lynette felt that ornate could mean "a piece of wood" but discounted this meaning since the author had already explained this. She then considered "size" but realized that the author mentioned size after the word. She
continued to sample possible word meanings such as "crafted," "delicate," and "detailed" before she was satisfied with her word meaning construction.

Overall, Lynette's strategic use of content analysis enabled her to negotiate plausible meanings for these unfamiliar words. Her comprehension remained intact even though some word meanings were inaccurate or were general in nature.

Word Level Analysis. The extent to which Lynette activated word level strategies was minimal. In fact, she made only passing comments about being uncertain of the pronunciation of five words (quavery, soulful, fibrous, chiffonier, and resiliency). Yet, she initially pronounced all of them correctly except for chiffonier. Although pronunciation was not a major issue for Lynette, she did consider word appearance for glossy and ghastly. She connected glossy to gloss which led her to the meaning of "shiny" (refer to Appendix A on page 352). For ghastly, she claimed that her first impression of the word was "ghost" since they looked alike (refer to Appendix A on page 353).

Lynette also demonstrated some use of structural analysis for words such as soulful, radiate, ornate, and resiliency. Her initial meaning constructions for soulful dealt with "soul" and related religious connotations (refer to Appendix A on page 353). For radiate Lynette mentioned knowing about "radiators" but saw no connection between the
two words (refer to Appendix A on page 353). When she encountered the word resiliency, she commented that she knew "resilient" was a word but she did not know what it meant. Finally, for the word ornate, Lynette was quiet for a long time before she admitted that she was trying to think of a related word. This behavior came after I had explained the relationship between the previous word fibrous and "fiber." She candidly referred to this episode and stated that she was trying to do the same thing with ornate. Overall, Lynette attempted to use morphemic analysis, but her efforts did not help her create desired word meaning constructions. Yet, she demonstrated awareness that this strategy could be beneficial for some words.

Outside Sources. Lynette's admission of her infrequent use of the dictionary as a word learning strategy was confirmed during these situated think aloud sessions. She consistently claimed that she only used the dictionary for words that really mattered to her. She consulted a dictionary for three of the twenty-three targeted words. She used this tactic only after exhausting other possibilities such as content analysis, consideration of text expectations, and meaning transformations. Lynette resorted to the dictionary because these three words either piqued her interest or presented a challenge to her in some specific way.
For example, with the word *soulful* in C. Clark's *My So-Called Life* (refer to Appendix A on page 353), Lynette initially focused on the word part "soul" before experimenting with such meaning transformations as "he thinks like soul," "really long and hard look," and "sad look." She also considered nonexamples or nondescriptors of the word when she commented that "I don't really think of like *soulful* is like a happy look or anger." Then she decided that a "*soulful* look" must refer to a "meaningful look," since authors generally do not use these kinds of words unless it is important to specific episodes in the plot. At this point, Lynette referred to the dictionary for confirmation, because she wanted to know "what kind of look he's giving her." Once she read the dictionary definition of "full of or expressing deep feeling," she felt that her definition of "meaningful look" was correct.

During another word learning episode, Lynette targeted the word *gait* in the following passage:

> As the men rounded a curve in the road, they became more distinct. There was in the easy fluid *gait* of the shorter man a familiarity that made me gasp. (Taylor, M. *Roll of Thunder, Hear My Cry*, p. 33)

Once more she focused on text structure expectations and subsequently questioned why the author chose to write such a puzzling phrase as "There was in the easy fluid *gait*..." Thus, she made no attempt to define the word herself, but rather chose to use the dictionary since "the whole sentence
doesn't make sense and I kind of want to make sense out of the sentence and stuff."

Lynette consulted a dictionary a third time with the word *hamlet* in Gary Paulsen's *The Car* (refer to Appendix A on page 354). As mentioned previously, this session was unique in that Lynette experienced two encounters with the word. At first, she used sentence content and key words to construct the meaning "a set of leaders," since it looked like a legitimate appositive in the sentence. Then she encountered the word again in a succeeding paragraph and realized a discrepancy in her hypothesized meaning. At this point, Lynette began negotiating clues between the first and the second encounter with *hamlet* and considered such plausible meanings as "where the leaders are," "where they are in hiding," and "a dock or a boathouse." Because of her uncertainty and her growing interest in the correct meaning, she decided to consult the dictionary for clarification. Thus, these three episodes illustrate Lynette's use of references when unknown words present a challenge to her and after she has made legitimate attempts at constructing word meanings.

**Schematic Connections**

A detailed examination of Lynette's schematic connections revealed a significant pattern in the way she used context to construct word meanings. With the
twenty-three targeted words, Lynette remained text-bound in her connections for nine of the words and extended beyond the text for the rest of the words. She was able to generate correct word meanings with text-bound schematic connections when she ventured away from sentence content to explore more passage content. In fact, the only time she produced a correct meaning from sentence content with a text-bound connection was for the word *impulsively* in A. Ehrlich's *Where It Stops Nobody Knows* (refer to Appendix A on page 352). In this case, the sentence provided obvious meaning clues and Lynette had some partial knowledge of the word.

When Lynette mobilized extended schematic connections, she constructed correct word meanings for four words out of nine when she remained at the sentence level. She generated three correct word meanings out of four words when she made extended schematic connections with passage content. These extended connections were naturally influenced by the conceptual richness of targeted sentences and surrounding passage content. In general, Lynette resorted to passage content when sentences contained minimal clues. The quality of sentence and passage content coupled with a sufficient knowledge base were mediating variables that affected the extent to which Lynette was able to make extended schematic connections. She admitted that she had some knowledge of all words she was able to correctly define regardless of the
type of schematic connection. Overall, the least productive combination of variables was the use of text-bound schematic connections with sentence content only. Lynette produced more correct word meanings with extended schematic connections.

**Generated Word Meanings**

With the twenty-three targeted words, Lynette was able to construct legitimate meanings for twelve words without using outside sources. For the most part, she used synonyms and brief phrases to define these words. More importantly, these descriptors were frequently syntactically correct and therefore could be used as a substitute within the sentence framework. For example, when Lynette tried to make sense of the word *groveling* in "Dog goes down on his stomach, *groveling* about in the grass" from *Shiloh* by Phyllis Reynolds Naylor (p. 13), she simply substituted the word "crawling" for *groveling* and was satisfied with the result (refer to Appendix A on page 353).

Lynette also used this substitution strategy even with incorrect word meaning constructions. For the word *sinewy* from M. Taylor's *Roll of Thunder, Hear My Cry*, Lynette figured that the word could mean either "bony" or "short" because it fit the syntactic as well as semantic context of the targeted sentence (refer to Appendix A on page 354). In another word learning episode from the same book, she felt
that the word lynched probably meant either "hit" or "whipped" (refer to Appendix A on page 354). Again, both words fit the syntactic and semantic context of the sentence.

Another strategy Lynette used to generate word meanings was her use of meaning transformations which resulted in both correct and incorrect word meanings. For the word fibrous from Roll of Thunder, Hear My Cry by Mildred Taylor (refer to Appendix A on page 354), Lynette constructed several definitions as she wrestled with the meaning of this word. She considered such ideas as "a part of a white puff," "not white," "fabric," and "soft." Although her constructions were inaccurate, she did not use the dictionary because she felt the word was not that important to the story. In this same book, Lynette made several meaning transformations for the word chiffonier (refer to Appendix A on page 354). Knowing that the word represented some type of furniture, she made several meaning transformations including "a desk," "a dresser," and "a vanity." These suggestions satisfied Lynette.

**Summary**

Because Lynette is a strong reader, she mobilized independent word learning strategies in efficient and effective ways during these ten situated think aloud sessions. I noticed that she possessed knowledge of word
learning procedures as well as knowledge of the conditions under which to activate these specific strategies. Furthermore, Lynette understood the context and circumstances surrounding situated think alouds and thus assumed the role of a rich informant with no apprehension. Her sharp awareness of her own actions made her an excellent participant.

Lynette's predominant word learning strategy was to explore sentence and/or passage content in order to generate either text-bound or extended schematic connections that would lead to possible word meanings. On several occasions, however, she made references to the ways authors write and the ways texts are written as she considered word meaning possibilities. These text expectations served to eliminate improbable meanings as she made room for other considerations. I did not notice this strategy with the other case study participants.

Shawn

Introduction

Shawn was a bright student who revealed competent literacy behaviors. He enjoyed reading a variety of books that differed in terms of difficulty level. He selected some Hardy Boys books and more challenging texts such as Tarzan of the Apes at the Earth's Core by Edgar Rice Burroughs. He demonstrated facility with oral language that surpassed that of an average student in seventh grade.
Shawn believed in the importance of learning new words because "if you never extend and expand your vocabulary, you'll only know the same set of words." He thought that it was even more important for middle school students, since they are rapidly becoming "young adults" and are beginning to be exposed to "more complex phrases" in different content areas. According to Shawn, people learned new words by reading, by listening to others, and by looking them up in a dictionary. In addition, he saw television viewing as a source of word learning, because characters in sitcoms sometimes use big words to impress others. He believed that knowledge of unfamiliar words could provide a person with a sense of power, since some people like to boast about knowing the meaning of low frequency words.

Shawn had a sharp awareness concerning his own independent word learning strategies. He articulated the value of using context clues and structural analysis to figure out the meaning of unfamiliar words. He was also a reader who would take the time to consult a dictionary when a word really piqued his interest.

**Word Learning Strategies**

**Content Analysis.** Shawn relied heavily on context as an initial word learning strategy for his eighteen targeted words. He used passage content for six words and remained at the sentence level for the remaining twelve words. I
noted that he used passage content under the following conditions:

1. Shawn examined passage content before and after the words.

2. Shawn used other strategies with passage content.

3. He generated both correct and incorrect word meanings where half of the correct word meanings were generalized and not specific.

4. The words targeted by Shawn were unfamiliar words representing familiar concepts.

5. Shawn claimed to have no partial knowledge of the words he selected.

6. The six sentences provided minimal clues to word meaning.

When Shawn searched for word meaning clues in the passage, he went in one direction only for each word. He either looked before the word or after the word but never examined both directions for one single word. Furthermore, he examined content before the word more often than after the word.

I noted that with the four "before" episodes, Shawn either made references to events that occurred previously or he focused on immediate content before the word. For example, with the word *askari* from *Tarzan of the Apes at the Earth's Core* by E. Burroughs, Shawn initially associated the word with "safari" because he remembered that Tarzan had seen a little safari of men earlier in the book (refer to Appendix A on page 356).
With the word quadrangle from *The Undersea Trilogy* by F. Pohl and J. Williamson, he again made connections to previous actions of the character. He felt that since "the man was in the building," then quadrangle could mean "around the building" (refer to Appendix A on page 357). For *Crystobal* and *langosta* in *Timothy of the Cay* by T. Taylor, Shawn mobilized content immediately preceding the targeted sentence (refer to Appendix A on pages 356 and 357). Thus, when Shawn made references to content before the word, he either recalled events that occurred over several pages or he focused on the passage right before the word.

During two episodes when Shawn used passage content after the word, he ventured forward only to the next sentence. The following excerpt from *Timothy of the Cay* by T. Taylor illustrates this behavior:

> He knew that slaves—like Tante Hannah, who'd been emancipated forty-one years before, in the Virgin Islands—had had to do that. Show their gums. Now he had to do it, too. (p. 12)

In this episode Shawn arrived at an erroneous conclusion that emancipated meant "a check up" since "he had to show his gums...to make sure he doesn't have any diseases that could spread to the crew or the captain." I noted this similar pattern of referring to immediate content directly after the targeted sentence for the word martinet-like in *The Undersea Trilogy* by F. Pohl and J. Williamson (refer to Appendix A on page 357).
Shawn used other strategies as he mobilized passage content in his attempts at constructing word meanings. He focused on key words and phrases and also referred to the dictionary. For the word *askari* (refer to Appendix A on page 356), Shawn used passage content along with the key word "leading" to consider the possible meaning of "a group of people or leaders." Because he could only generate a global meaning for the word *langosta* (refer to Appendix A on page 357), Shawn felt it was necessary to consult the dictionary for a more specific definition.

With each of the six words, Shawn claimed to have no partial knowledge of any of them even though they represented familiar concepts. Yet, by mobilizing passage content, he was able to generate four correct meanings, two of which represented a generalized level of understanding. For example, before referring to the dictionary, he was able to figure out that *langosta* was something edible even though he did not know that it was a lobster (refer to Appendix A on page 357). He also had incorrect meanings for two words. He thought that *emancipated* was "a check up" and that *quadrangle* could be "a building." In both instances, he created meanings that actually fit the passage context even though they were incorrect (refer to Appendix A on page 357).

I noted that the six sentences containing these targeted words provided limited clues for word meaning.
Although three sentences were conceptually loaded, they only provided subtle word meaning clues. For example, Shawn targeted the word *askari* in this sentence:

Rounding a curve in the trail the leading *askari* came in sight of him and when they saw him they halted and commenced to jabber excitedly, for these were men recruited in another district—men who did not know Tarzan of the Apes by sight. (Burroughs, E. *Tarzan of the Apes at the Earth's Core*, p. 12)

The other three sentences were simple as illustrated by the following sentence containing the targeted word *martinet-like*:


Therefore, Shawn's use of passage content demonstrated his awareness of looking elsewhere when targeted sentences do not provide necessary information to formulate a legitimate word meaning for an unfamiliar term.

Although Shawn did refer to passage content on six occasions, he preferred to stay at the sentence level for the majority of words he targeted during these situated think alouds. A close examination of his use of sentence content revealed the following occurrences:

1. Shawn used other word learning strategies with sentence content.
2. He frequently consulted the dictionary.
3. Sentences containing targeted words were conceptually loaded but contained only subtle word meaning clues.
4. Shawn demonstrated a strong sense of story as he recalled events, made predictions, and drew logical inferences from the text.
5. Shawn generated correct and incorrect word meanings including some generalized meanings.

6. Shawn claimed to have no word knowledge for the majority of these words.

7. Targeted words were unfamiliar words representing familiar concepts.

Shawn frequently mobilized several different word learning strategies simultaneously as he remained focused on sentence content. The most common strategies were the use of key words and phrases and reference to the dictionary. In addition, he sometimes reverted to a word level analysis as he examined word appearance and structure in conjunction with sentence content.

Shawn's tendency to focus on key words and phrases was a distinctive strategic behavior which did not necessarily produce legitimate word meanings. For example, in *Mars Plus* by F. Pohl and T. Thomas, Shawn targeted *phaging a pathogen* in the following sentence:

"The offending codes no longer exit. Our brother Wyatt found, absorbed, and erased them—like a white blood cell *phaging a pathogen.*" (p. 332)

While focusing his attention on the key word "erasing," Shawn felt that *pathogen* could mean "erasing something" and that *phaging* could refer to "finding what was erased."

Because he was uncertain about this meaning construction, Shawn opted to use the dictionary for verification. Once he read the definition for *pathogen*, which was "a specific causative agent (as a bacterium or virus) of disease," he quickly associated the key word
"virus" to pathogen and then stated that phaging must mean "erasing." He was reluctant to let go of "erasing" until he looked up phaging. He discovered it referred to "one that eats." After that, Shawn reorganized his meanings for these words and stated that "it's like a white blood cell consuming the bad virus or eating it up and like getting it out of the system." Shawn's use of key words as a meaning making strategy extended across different contexts. He found key words within the context of targeted sentences as well as in dictionary definitions.

The targeted sentences were conceptually loaded but contained only subtle word meaning clues. The following excerpts illustrate this point:

"What did you eat all that time?" Dr. Heath asked, adding, "Lie back."
"Oh, fish and langosta, coconuts, sea-grape leaves..." (Taylor, T. Timothy of the Cay, p. 3)

The trendline forecasts look pretty sour. Now they show nuclear escalation probabilities peaking pretty fast. We've got a date for it. (Pohl, F. Man Plus, p. 48)

Brim had seen Onrad's courageous move raise a predictable hue and cry from CIGAs all over the Empire, but the Prince remained undeterred, indefatigable in his belief that the new ships constituted the absolute minimum counterforce necessary to insure survival of civilization. (Baldwin, B. The Mercenaries, p. 9)

In each case Shawn was able to construct a generalized meaning for the targeted words as he mobilized sentence content along with other strategies including key words, reference books, and word appearance and structure.
Of the twelve words, Shawn claimed that he had partial knowledge of only two words, *escalation* and *frigid*. Similar to words under the passage content category, these words were new words representing familiar concepts. Yet, Shawn constructed legitimate word meanings while remaining at the sentence level. It may be that his strong sense of story, as evident in his ability to manipulate details, make predictions, and draw logical inferences, and the overall contextual richness of the sentences worked in tandem to help him produce likely word meanings.

In conclusion, Shawn used content analysis at sentence and passage levels in conjunction with other strategies to generate plausible word meaning constructions. He demonstrated conditional knowledge of word learning when he made the decision to either stay close to the sentence or to venture out into passage content. He was able to distance himself from the immediate context to retrieve information from previously read text. He also mobilized information after the word when succeeding sentences offered word meaning possibilities. Shawn's flexibility in utilizing contextual analysis served him well as an independent word learning strategy.

**Word Level Analysis.** Shawn seldom resorted to word level strategies as a primary independent word learning technique. On several occasions he made references to word appearance or structure as he examined sentence content.
For instance, with the phrase *phaging* a pathogen (refer to Appendix A on page 357), Shawn initially thought *phaging* was "paging" but was quick to realize that it did not make sense in the sentence context. Another episode involving word appearance occurred with the word *annihilated* (refer to Appendix A on page 357). Initially, he struggled with pronunciation as he repeated it several times. Then, using word appearance alone, he claimed that it had something to do with "inhaled." He even justified this meaning by referring back to the sentence but quickly switched his attention to the other targeted word *armada*. At this point he used word appearance with sentence content as he equated *armada* with "army." During another think aloud session, Shawn used word appearance once again when he made a connection between the targeted word *undeterred* and "determined."

Shawn also activated his knowledge of word structure during three encounters with new words. He associated "fatigue" with *indefatigable*, "escalate" for *escalation*, and "refrigerator" for *frigid*. Sentences containing these words are found in Appendix A on pages 357 and 358. His engagement with the word *escalation* produced a surprising outcome. Because he knew what "escalate" meant, he figured that *escalation* meant "increasing or rising." He decided to double check the meaning with the dictionary. While searching for *escalation*, Shawn was uncertain about why it
was not an entry word. He found "escalator" and "escalate" and then concluded that escalation was the plural of "escalate." He read the meaning for "escalate" and was satisfied that escalation meant the same thing, only that "it's just the plural." In general, word level analysis played a minor role in Shawn's repertoire of independent word learning strategies.

Outside Sources. Shawn consulted the dictionary when he was uncertain about his word meaning hypotheses and when he expressed a desire to confirm his ideas. Use of the dictionary was never an initial strategy but rather a last resort when all other strategies did not help him arrive at acceptable meanings. As mentioned previously, he picked out key words in dictionary definitions to help him explain the meanings of these new words. For example, with the word annihilated (refer to Appendix A on page 357), Shawn read the following dictionary definitions:

la) to cause to be of no effect; b) to destroy the substance or force of; 2) to regard as of no consequence; 3) to cause to cease to exist; 4a) to destroy a considerable part of; b) to vanquish completely (Webster's Ninth Collegiate Dictionary, p. 87)

He then focused on the key word "destroy" and used that word to confirm his meaning constructions. His interactions with the dictionary definition in this think aloud session illustrated how he makes sense of this type of reference book. He ignored much of the definitions and actually focused on one key word that fit the semantic and syntactic
content of the targeted sentence. He read beyond the standard structures of dictionary definitions and used what made sense to him.

**Schematic Connections**

In terms of schematic connections, Shawn relied on text-bound connections more frequently than extended schematic connections. He made thirteen text-bound connections as compared to five extended schematic connections. Within the text-bound schematic connections, Shawn remained at the sentence level with twelve words and mobilized passage content with only three words. For his extended connections, he utilized sentence content for two words and passage content for two words. Shawn generated plausible word meanings under the following conditions: text-bound with sentence content, text-bound with passage content, and extended with passage content.

He produced the largest number of correct word meanings when he made text-bound schematic connections with sentence content. He produced only incorrect word meanings when he made extended schematic connections at the sentence level. It may be that Shawn's understanding of story coupled with conceptually loaded sentences in vocabulary-rich books enabled him to be successful in constructing word meanings at the sentence level with text-bound schematic connections.
Generated Word Meanings

Without the aid of the dictionary, Shawn constructed correct and generalized meanings for eleven of the eighteen targeted words. Of the seven incorrect words, he adjusted his word meanings for two words after using the dictionary. The remaining five incorrect word meanings did not influence the story line in any measurable way.

An interesting feature of Shawn's word meanings is that he worked through meaning transformations during eight word learning episodes. For example, Shawn made several definition transformations as he wrestled with the meaning of *ramrod* in the following excerpt:

"Proceed, Cadet Eden," he ordered, martinet-like. Then for a moment, the *ramrod* formality dropped from his face and he smiled. (Pohl, F., & Williamson, J. *The Undersea Trilogy*, p. 8)

At first he claimed that it meant the character was "doing what he was supposed to do." Then after rereading the sentence section, "He dropped the thing for a second and said good luck," Shawn concluded that maybe it had something to do with "his sense of duty" or even "the hardness on his face." He even tried substituting the word "strict" for *ramrod* as he reread the sentence orally. Shawn skirted the actual meaning of the word, yet drew enough from sentence context to create a satisfactory meaning that did not interfere with his reading. Other meaning transformations occurred in similar fashion.
As Shawn articulated meanings for these unfamiliar words, he used syntactically correct synonyms on several occasions regardless if they were right or wrong. He defined words in such a way that the given definitions fit the syntax of the sentence. Examples include "strict" for *ramrod*, "building" for *quadrangle*, "armies" for *armada*, and "determined" for *undeterred*.

**Summary**

Shawn's independent word learning strategies served him well as he confronted unfamiliar words during his personal reading. He relied on content analysis as his primary strategy, even though he demonstrated use of several other strategies in conjunction with context. Although he remained focused on sentence content for the majority of the targeted words, he was able to generate plausible meanings because of his strategic use of overall comprehension strategies paired with the conceptual richness of the sentences. He rarely mobilized word level strategies and was unperturbed about mispronouncing words. He referred to the dictionary only after he had exhausted his other strategies. He also used this reference to confirm tentative meanings.

A significant feature of Shawn's independent word learning behaviors was the large reliance on text-bound schematic connections. He seldom made extended or analogous
schematic connections. Rather, he chose to remain close to the text as he generated word meanings from sentence content. He defined these unfamiliar words with either synonyms or brief phrases. Most of all, Shawn demonstrated an awareness of what he was doing as he encountered these unfamiliar words.

Brady

Introduction

Brady exhibited an ambivalent attitude toward reading in general. He demonstrated average literacy behaviors for his age in both oral and written language. Brady liked to select his own books to read and chose an array of books representing different levels of difficulty, ranging from Larrister on the Texas Trail by Loren Zane Grey to Jurassic Park by Michael Crichton.

Although Brady agreed that learning new words is important, it was not a major interest for him. He displayed a passive attitude about vocabulary in general and was unsure if unfamiliar words were detrimental to his reading comprehension. He felt that teachers help him learn new words when they discuss them before reading and when they provide definitions. He also believed that he learns many words from movies and television programs. In terms of independent word learning strategies, Brady stated that he usually rereads the sentence in which the new word is located, tries pronouncing it, and sometimes resorts to using the dictionary. Overall, Brady realized that
unfamiliar words can make reading comprehension difficult for him and that "it could take away a lot of the action from the story."

Although the word learning strategies Brady used were situation-based, he initially focused on word appearance and word pronunciation and sound. In terms of schematic connections, he searched within the boundaries of the sentence content and did not venture beyond this point on his own volition.

Word Learning Strategies

Content Analysis. Of the thirteen words Brady targeted during the situated think aloud sessions, he remained at the sentence level for the majority of his content explorations. He ventured into passage content for two words. I noted the following conditions as he talked about remuda and pristine:

1. Brady was unconcerned about pronunciation even though he mispronounced both words.
2. Brady used another strategy with passage content.
3. He explored content before and after the words but focused only on one direction for each word.
4. Brady had no partial knowledge of the words.
5. Targeted words were unfamiliar words representing familiar concepts.

When Brady first encountered each word, he did not hesitate in his pronunciation attempts with each one. He said "remada" for remuda and "pristine" (with a long i sound for the second i) for pristine. He did not question whether
these attempts were correct but rather concentrated on word meaning construction.

As he shifted his attention away from pronunciation, Brady examined passage content by focusing on key words and phrases either before or after the content (but not both for one word). For example, he targeted the word *remuda* in the following excerpt:

Watt took his time rubbing down his horse and turning it loose into the *remuda*. He strolled into camp whistling and with all eyes on him, came over to Whiskey's chuck wagon. (Grey, Z. *Lassiter on the Texas Trail*, p. 45)

Initially Brady claimed it was "a place for horses to stay because of the sentence." Then I asked him to elaborate as to the kind of place this could be.

Researcher: Could you tell me more about what kind of place this could be?
Brady: Maybe like a pen or something.
Researcher: Why would you say that?
Brady: Because it says he turned his horse loose and then he's not scared of it running away or something.
Researcher: What gives you that idea?
Brady: Because it says "He strolled into camp whistling and with all eyes on him, came over to Whiskey's chuck wagon." It says he just *strolled* away.
Researcher: So what does that mean?
Brady: He just walked away towards camp.
Researcher: What does that mean about his horse?
Brady: That it wouldn't go anywhere.

(11/6 pp. 3-4 T20)

As illustrated in this transcription, Brady explored content after the targeted word. He also used the key word "*strolled*" as a strategy to help him justify his initial word meaning construction of *remuda* as "a place for horses."
Brady also referred to passage content for the word *pristine* in the following excerpt:

"This first clue," Harry said, "came from the condition of the craft itself. It shows no damage whatever. Its condition is *pristine.* (Crichton, M. *Sphere,* p. 66)

In this episode, however, he focused on passage content before the word as he again used a key phrase to construct a meaning for *pristine.*

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**Researcher:** Talk to me about that word.

**Brady:** Well, I know it's a condition. I don't know if it's a bad or good condition.

**Researcher:** What are they talking about here?

**Brady:** A spacecraft.

**Researcher:** Okay. Can you tell something else?

**Brady:** About what? The word?

**Researcher:** Yes. About the word.

**Brady:** I think it probably means fairly good.

**Researcher:** What gives you that idea that it might mean fairly good?

**Brady:** Well because...it says "no damage whatever."

**Researcher:** What else can you say?

**Brady:** I don't know. Do you know what it means?

**Researcher:** Yes.

**Brady:** Does it mean fairly good?

(1/25 pp. 32-33 T29)

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In this word learning episode, Brady attended to previous content as he used the phrase "no damage whatever" to make a connection with *pristine.*

Both *remuda* and *pristine* were unfamiliar words representing familiar concepts to Brady. He claimed to have no partial knowledge of the words and, as a result, relied on passage content to help him construct these generalized word meanings. In both cases his ideas about the words fit
the context of the story and therefore kept the story line intact.

Brady remained at the sentence level as he used contextual analysis for nine words (n=13). I noticed the following conditions as he examined sentence content only:

1. Brady mobilized other strategies as he explored sentence content.

2. Sentences containing targeted words were conceptually loaded but contained only subtle word meaning clues.

3. Brady produced general meanings for six words (n=9).

4. Brady's use of the dictionary provided minimal clues.

5. Brady had no partial knowledge of the words.

6. The words were unfamiliar words representing familiar concepts. (The Cambodian term krama was the only exception.)

Brady used several word learning strategies as he examined sentence content of targeted words. He used the sound of words, structural analysis, key words and phrases, the dictionary, and even text structure. For example, with the word flatly in Lassiter on the Texas Trail by Zane Grey, Brady made references to sound and text structure (refer to Appendix A on page 359). The following excerpt illustrates these strategies:

Brady: "Next time, you tell me where you're headed," Morris said flatly. It sounds like it's a mad tone.

Researcher: What gives you that idea?

Brady: Well because it says "next time" then it has a comma..."where you're headed" and then "Morris said flatly."
Researcher: What is it there that gives you the idea that he's not happy?
Brady: It just sounds like he's not happy.
Researcher: It sounds like he's not happy?
Brady: Yea. By the way the sentence is structured. (11/6 p. 4 T20)

In this session Brady used sound and text structure to rationalize the meaning of *flatly* as "a mad tone." He also referred to sound for the word *impede* in the following sentence:

He didn't want to *impede* circulation through the carotid artery. (Crichton, M. *Jurassic Park*, p. 246)

Brady could not articulate why he thought that the word *impede* meant "stop" except to refer to the "sound" of the word and sentence.

Brady: I don't know what *impede* means. It *sounds* like he didn't want to stop the circulation.

Researcher: What makes you say that?
Brady: Well because it *sounds*...like it says "He didn't want to *impede* the circulation."

Researcher: What makes you think of stop?
Brady: Just *sounds* like it fits. (11/9 p. 5 T21)

Brady had an intuitive feeling that his meaning fit the sense of the sentence but could not provide a rationale for it. His choice of the word "sounds like" may have been his way of expressing these feelings.

The most common strategy Brady used with sentence content was key words and phrases. The term *krama* provides an interesting example that is representative of a pattern used with other words. Brady found it in the following passage:

Through the doorway she could see Soka huddled with Grandmother on the living room mats, the two of them
wrapped in afghans to ward off the growing winter chill. As she had for two days now, Soka twisted in her hands a thin, ragged krama, grieving for her lost friend Theary. (Crew, L. Children of the River, p. 147)

Unconcerned about pronunciation, Brady initially focused on sentence content and decided that the word could mean "a rag or like a scarf." When asked to justify his idea about this meaning, he skirted this query by turning his attention to the word "Theary." He wanted to know if that was a name. Then he turned back to the word krama and insisted that it just "sounded like a rag." At this point, he referred to the key word "thin" and began to consider other meanings, such as "silk cloth," "a rag," and even "a towel." Furthermore, he focused his attention on the phrase "twisted in her hands" and used this information to justify his word meaning constructions.

Another strategy Brady used with sentence content was word structure, as illustrated with the word astrophysicist in the following excerpt:

"Give me your opinion of this," Barnes said. He handed Norman a sheet of paper:

ANOMALY INVESTIGATION TEAM
1. Theodore Fielding, astrophysicist/planetary geologist
2. Elizabeth Halpern, zoologist/biochemist

(Crichton, M. Sphere, p. 21)

At first, Brady claimed he did not know how to pronounce astrophysicist. Then, after recognizing "physicist" in the word, Brady had no difficulty with pronunciation. He was aware of his use of structural analysis and explained that "on some words it helps to break the word apart."
Furthermore, he showed knowledge of the root "astro" as indicated in the following transcription:

Researcher: What can you tell me about the meaning of that word?
Brady: I know it's a job.
Researcher: How do you know it's a job?
Brady: Because Theodore Fielding is an astrophysicist.
Researcher: What else can you say? What is an astrophysicist?
Brady: I guess they study space.
Researcher: What makes you say space?
Brady: Astro, because of astro.

Sentences containing targeted words were conceptually loaded but contained only subtle word meaning clues. Brady claimed to have no knowledge of targeted words as he constructed generalized meanings for five of the eight words. They represented familiar concepts except for the word krama.

In sum, Brady's use of content analysis was accompanied by other strategies at both sentence and passage levels. As he explored passage content, he did so in one direction only, either going before the word or after the word. He remained at the sentence level for the majority of the words as he made text-bound schematic connections to construct generalized word meanings. For the most part, Brady was hesitant in articulating his movements through the content to find meaning clues. Furthermore, he did not use this strategy unless he felt that he knew how to pronounce the words regardless if he was correct or not.
Word Level Analysis. Correct pronunciation and the sound and appearance of targeted words were important to Brady. In fact, I noted that initially he was targeting words that he could not pronounce and was paying little regard to words with unfamiliar meanings. As a result, Brady analyzed two words at the word level and did not explore the content. One phrase which represents this pattern is *inherent instability* from the following passage:

> The whole system could suddenly collapse. And that was what he said about Jurassic Park. That it had *inherent instability*. (Crichton, M. Jurassic Park, p. 243)

Although he could pronounce both words, Brady remained focused at the word level with his analysis.

Researcher: What do you think this means?
Brady: Instant. You inherited it instantly.
Researcher: You inherit it instantly.
Brady: Yea.
Researcher: What gives you that idea?
Brady: Well, because the first word—instant, it looks like...uh...something. [pause]
Researcher: Does that make sense with the story?
Brady: Well, the sentence doesn't sound right to me though. That it had *inherent*...it sounds like it needs an "ed" at the end of *inherent*.
Researcher: What else?
Brady: I don't know.
Researcher: Does it bother you to keep on reading?
Brady: No. (11/9 pp. 4-5 T21)

Brady set narrow boundaries within which he examined this phrase. He did not go beyond the word level and hence did not construct a legitimate meaning for "inherent instability" other than "inherit it instantly."

Outside Sources. Brady referred to the dictionary with four words as he explored sentence content for meaning
clues. He did not use the dictionary when he examined passage content. I noted that he consulted the dictionary after he exhausted all possibilities. However, he admitted that if he were at home, his mother would tell him what the word meant. Even with the aid of the dictionary, Brady still constructed only generalized meanings for his targeted words. For example, he used the dictionary for the word *pedestal* in the following excerpt:

"Anyway," he went on, "I don't need people putting me on a *pedestal*. It's more than just this pressure of having to be what everybody wants me to be. My parents and all." (Crew, L. *Children of the River*, p. 88)

In this episode, Brady initially considered "on the line" as a substitute for "on a pedestal." Because he was not satisfied with this meaning construction, he asked to use the dictionary since he could not ask someone. He read this definition orally: "A foot of a late classic or neoclassic column; the base of an upright structure; to place or furnish with a pedestal." This definition did not help Brady since he failed to attend to the last entry about "a position of esteem." He then commented that a thesaurus might have been a better reference source. Consequently, Brady was unable to produce a legitimate meaning for *pedestal* during this think aloud session.

Brady's use of key words as a word learning strategy was also evident in how he interpreted dictionary
definitions. The word *ashen* in the following sentence illustrates this point.

This humble promise seemed to reduce the last embers of Soka's anger to *ashen* weariness. (Crew, L. *Children of the River*, p. 117)

At first Brady remained close to the sentence content as he focused his attention on the key word "anger." He tried to make this word fit for *ashen*. Then he considered the word "sorriness" because of its spelling similarity to "weariness." However, Brady realized that this was not a meaningful connection and therefore dropped this line of inquiry. At this point, he looked up *ashen* in the dictionary and read this definition: "Relating to or made from ash wood; resembling ashes; deadly pale (a face ashen and haggard)." Brady focused his attention on the key word "face" and claimed that the author used the word *ashen* to refer to a "pale face."

**Schematic Connections**

Brady's predominant stance in reference to schematic connections was text-bound connections at the sentence level. With this mode he produced six generalized word meanings and one correct word meaning. He also made one text-bound schematic connection at the passage level with the word *pristine*. In this episode he constructed a general layer of meaning by differentiating between "good conditions and bad conditions."

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In terms of extended schematic connections, I noted that on two occasions Brady made inferences that related to his existing knowledge base. For example, as he explored passage content for clues about the word remuda, he commented on how the horses "were safe" and "wouldn't go anywhere." Brady made another extended schematic connection as he remained at the sentence level for the word pedestal. In this case, he equated the idea of "putting me on a pedestal" with "putting me on the line," which illustrates an extended schematic connection to what he already knew about common language phrases. Furthermore, Brady made no schematic connections for two words he analyzed at the word level. His focus on pronunciation and word appearance limited possible schematic connections. Nevertheless, in the ten situated think aloud sessions, he relied mainly on text-bound schematic connections at the sentence level.

**Generated Word Meanings**

Brady's constructed word meanings remained on a general level for ten of the thirteen targeted words. Examples include "a job" for astrophysicist, "a name or job" for tutankhamen, and "body part" for carotid artery.

Brady talked through several meaning transformations for two words, LeBeaumaniere and krama. Interestingly enough, both terms represented foreign words which made Brady rely heavily on content to construct meaning. It is
possible that the nature of the situated think alouds provided a context for Brady to consider multiple meanings.

I also noticed that Brady used syntactically correct synonyms and phrases to define four words. The importance of this strategy was clearly evident in his encounter with *krama* and *ashen*. As he explored the meaning of *krama*, I asked him to explain why he thought it meant a rag (refer to Appendix A on page 360).

Researcher: Does rag make sense? Why does it make sense?
Brady: Well, because it goes with this before the comma.
Researcher: It goes with before the comma?
Brady: Well, it goes with the sentence.
Researcher: The sentence?
Brady: Yea. The sentence fragment.
Researcher: Oh. Okay. Does it go with anything else?
Brady: I don't think so.
Researcher: Does it fit the story?
Brady: I think so. (2/8 pp. 19-20 T32)

This meaning satisfied Brady. He never mentioned the fact that *krama* could be a Cambodian term. Furthermore, he did not pay attention to typographical aids since this word was italicized. He was convinced that "rag" was a suitable substitute since it "goes with the sentence." His focus on syntax overshadowed his search for other possible meanings.

The power of syntax as a word learning strategy for Brady was also evident in his interaction with the word *ashen* (refer to Appendix page 359). Once he read the dictionary definition, he picked out the key words "pale" and "face" and then surmised that the author used the word
ashen to mean "pale face." Yet, he was not contented with this meaning, because the phrase did not fit the sentence syntactically. He did not like the idea of "The humble promise seemed to reduce the last embers of Soka's anger to 'pale face' weariness." His need for syntactic harmony in constructing word meanings was clearly evident in the following excerpt:

Brady: I guess it means pale face.
Researcher: Does that make sense?
Brady: Not the way the definition says.
Researcher: So you don't think the definition fits the way the author used the word?
Brady: No. (2/1 pp. 20-22 T31)

Overall, Brady's generated word meanings captured only thin layers of meaning for the majority of his targeted words. Even with the help of a dictionary, he did not articulate specific ideas about these words.

Summary

As a word learner, Brady exhibited procedural knowledge of independent word learning strategies in that he mobilized content analysis techniques, word level methods, and the use of the dictionary. However, he was limited by his inability to explore word meanings at more sophisticated levels while using these procedures. His reliance on his mother or some other outsider to provide meanings for unfamiliar words overshadowed the opportunity to practice other independent strategies.
Brady's concern over pronunciation was another barrier that limited his practice with other strategies. Once he shifted his attention to the content, he made more progress with his word meaning constructions. His text-bound schematic connections at the sentence level represented his predominant stance in how he connected available information to construct legitimate word meanings. Furthermore, his ability to formulate generalized meanings for unfamiliar words served to keep his reading comprehension intact.

Angela

Introduction

As a disengaged reader, Angela voiced little interest in reading for enjoyment. She exhibited weak literacy behaviors as she participated in classroom activities and in situated think aloud sessions. Yet she still managed to attain average grades. She selected popular realistic books by authors such as R. L. Stine, Joan Lowery Nixon, and Lois Duncan for Sustained Silent Reading.

From formal interviews and self-report data, I noted that Angela consistently acknowledged the importance of learning new words. She felt strongly that a solid vocabulary base was necessary to be a proficient reader. She equated ease in comprehension with a large store of vocabulary words and readily admitted that unfamiliar words made reading comprehension difficult for her. While she agreed that looking up definitions in a dictionary helped her to learn new words, she never demonstrated use of this
strategy during the situated think alouds or in the classroom. She felt that teachers play an important role in her word learning, especially when they discuss new words before reading a selection. As a word learner, Angela demonstrated awareness of two independent word learning strategies, which were using the dictionary and asking someone.

Because of this narrow repertoire of independent word learning strategies, she consistently remained focused on pronunciations of unfamiliar words and rarely strayed beyond the immediate passage context in which words were targeted. Angela's reliance on outside assistance was evident as she waited for external support. Because she employed a limited number of independent word learning strategies, she exhibited a narrow band of text-bound schematic connections. Furthermore, she had difficulty articulating word meaning constructions which were mainly incorrect.

Word Learning Strategies

Content Analysis. Angela targeted six words during ten situated think aloud sessions. She made references to passage content for four words. However, for one of these words, I asked questions that actually influenced her word learning strategies. Therefore, the following statements are based upon three words where she independently utilized passage content:
1. Angela used passage content with other strategies.

2. Angela referred to passage content before the word.

3. She claimed to have no partial knowledge of the words.

4. Angela had difficulty articulating meanings for targeted words and generated only one generalized word meaning.

5. Angela targeted unfamiliar words that represented familiar concepts.

Angela's use of passage content was accompanied by other strategies, such as pronunciation, key words and phrases, and outside help. In fact, on several occasions her initial strategy was to focus on pronunciation, because she knew she was not saying the word correctly. The following excerpt containing the targeted word susceptible in L. Duncan's *Summer of Fear* illustrates her use of these other strategies:

I had an aunt who used to get them whenever she ate strawberries. The thing is that people who are susceptible to hives usually start getting them in babyhood. (p. 79)

Once Angela flagged down the word, she then made several attempts at sounding it out before being satisfied with "sub-script-able." In addition, she referred to key words such as "hives" and "babyhood" within the immediate sentence context and then made references to "strawberries" in the sentence before the word.

Researcher: Okay. Talk to me about the word.

Angela: Uh...in the sentence I really don't get the word when it says...people who are sub-sept-ible to hives usually start getting them in babyhood.
Researcher: What are they telling you there?
Angela: That sometimes you are born with it or...
[long pause]
Researcher: Sometimes you're born with what?
Angela: The...hives or whatever...like you get from eating something or whatever. Because from babyhood I guess since you're little you grow up with it.
Researcher: Okay. What else?
[Long pause with no response]
Researcher: You grow up with what?
Angela: Like the hives...like if you eat something.
Researcher: If you eat something?
Angela: Yea. Like in the book it says strawberries and so...
Researcher: And strawberries cause hives?
Angela: For her. (11/2 p. 11 T19)

In another think aloud session, Angela again used pronunciation and key words along with passage content as she explored the meaning of the word *khakis* in the following excerpt:

For a second our eyes meet, but a fat character in *khakis*, puffing, muttering, and pushing between us, follows his protruding stomach through the crowd. (Nixon, J. *The Other Side of Dark*, p. 67)

Angela was initially concerned with the pronunciation of this word and readily admitted that she could not say it. She made no attempt to "sound it out" but rather waited for me to tell her the word. Instead, I prompted with "tell me anything you can figure out about the word even though you can't pronounce it." At this point Angela returned to the text and reread the sentence orally. She said "chatter" for "character" and confessed that the sentence made no sense. She then used the key word "pushing" to state that "maybe he got pushed or something like that." She then substantiated this hypothesis by referring to the previous passage content. 250
with "because they meet first and because there's like a lot of people there." She concluded that "somebody pushed them and knocked them over."

The targeted words susceptible and khakis illustrate Angela's use of context before the word as opposed to after the word. She also referred to previous content with the word surges in The Other Side of Dark by J. Nixon. For susceptible and surges, Angela focused on key words in the aforementioned passages whereas she referred to generalized actions of characters for the word khakis.

When she initially targeted these words, Angela claimed to have no partial knowledge of them. The words were unfamiliar yet represented known concepts. Not only did she have difficulty with pronunciation, she also was unable to articulate decontextualized meanings. For example, during her exploration of the word susceptible, Angela could not verbalize a meaning beyond her connection with the key word "hives" as illustrated in the following comment:

> It's like if you eat something then like I don't know what it does because I don't have them but ...uh...I guess that you have them.... (11/2 p. 12 T19)

Nevertheless, with the word surges Angela suggested that it could mean "on and on" after she reread this passage:

The dream is too long. It slithers and slips and gurgles deeply into midnight pools in which I see my own face looking back. It pounds with a scream that crashes into earth-torn caverns and is drowned; it surges with the babble of voices that splash against my ears, it whispers over words I can't understand.

(Nixon, J. L. The Other Side of Dark, p. 1)
She referred to the "babble of voices" and the fact that the "dream keeps going on." As a result of her efforts, Angela constructed one layer of meaning for the word surges. For khakis, however, she was unable to create any legitimate meaning.

Angela's use of sentence content alone was evident in two of the six targeted words. The following conditions were evident with both words:

1. Angela used sentence content with other strategies.
2. Sentences provided subtle word meaning clues.
3. Angela had no partial knowledge of the words.
4. She generated incorrect meanings for both words.
5. The words were unfamiliar words representing familiar concepts.

As Angela focused on sentence content, she mobilized other strategies to help her construct meanings for the words bureau in Summer of Fear by Lois Duncan and hulks in Bearstone by Will Hobbs. The use of key words, pronunciation, and the desire to ask someone were evident in her explorations of these words. For example, Angela could not pronounce bureau in the following sentence:

But people just don't turn on lights in rooms where someone else is sleeping, or pretending to sleep, and so I undressed in the dark, groping through two different bureau drawers for my pajamas because I couldn't remember how I had arranged things, and crawled into the other twin bed. (Duncan, L. Summer of Fear, p. 52)

After her multiple attempts to pronounce the word proved unsuccessful, Angela expressed a desire to ask the teacher
for help. Then she revisited the text and focused on the key words "different drawers" as she claimed that bureau could mean "two drawers side by side."

Angela also used key words in her interactions with the word *hulks* in the following sentence:

For several hours they rode up Snowslide Canyon, crossing many of the wide, grassy paths among the sun-whitened *hulks* of spruces ripped from the edges of the slides high above. (Hobbs, W. *Bearstone*, p. 90)

Because she had no problem with pronunciation, she turned her attention to sentence content where she used the key words "path" and "canyon" to help her make connections to meanings such as "steep" and "road."

As illustrated in the aforementioned excerpts of these two words, sentences were conceptually loaded but provided only subtle clues as to word meaning. Furthermore, she had no partial knowledge of the words even though they represented familiar concepts. Limited word clues in the sentences, coupled with the absence of partial word knowledge and Angela's lack of attention to other meaning clues, resulted in incorrect word meaning constructions for both words.

In sum, Angela's use of content analysis as an independent word learning strategy did not serve her well as she struggled to make meaning on her own. Her hesitation in searching for meaning clues in sentence and passage content may be indicative of her sparse use of this strategy. Time and again she reported that her main word learning strategy
was to skip the word or to ask someone. Her overreliance on these two strategies resulted in her inefficient use of content analysis since she rarely mobilized this strategy.

**Word Level Analysis.** I noted that Angela relied heavily on word pronunciation as a primary word learning strategy. She remained "sound bound" for several targeted words as she made multiple attempts to pronounce them correctly. Although she made these attempts, she did so because of the situated think alouds. She told me that her normal procedure would have been to ask someone for help or to skip over the words.

A noteworthy episode illustrating her preoccupation with pronunciation occurred with the word *bureau* in *Summer of Fear* by Lois Duncan. At the end of our session with this word, Angela still struggled with pronunciation. After I told her the correct pronunciation, her only comment was that "it needs an 'o' at the end of it."

Pronunciation was an important issue in another think aloud session when Angela targeted the word *khakis* in this passage:

For a second our eyes meet, but a fat character in *khakis*, puffing, muttering, and pushing between us, follows his protruding stomach through the crowd. (p. 67)

The following transcription about this word illustrates her preoccupation with pronunciation and her disinterest in learning new words:

Researcher: Angela found a word on page 67.
Angela: I don't know how to pronounce it.
All right. Go from there.

Well, I don't know how to pronounce it.

Tell me anything you can figure out about the word even though you can't pronounce it.

Well, like...it says in the sentence "For a second our eyes meet, but a fat chatter [character] of...then there's the word. And it's not making sense. I don't know.

Keep talking. Tell me more.

Well, maybe he got pushed or something like that. He got called.

What gives you that idea?

Well, because they meet first and because there's like a lot of people there.

Okay.

And so because they say that people are running in and out. So I just guess that somebody ran into him.

And so what could that word mean?

That somebody pushed them or knocked them over.

What else can you tell me?

I don't know.

Does that word bother you?

Well, I don't...I usually don't care about words. I just skip them and keep going.

Are you curious about that word?

No. (1/18 pp. 3-4 T29)

In the same sentence as khakis, I was curious to find out what Angela knew about the word protruding since she did not target the word.

What about this word? Do you know that word?

It says...troosting or something.

Do you know what the word means?

Well, how do you say it?

Protruding.

Protruding...like it's like out. Your stomach's like...[pause]

Your stomach's what?

Big.

Good for you.
Angela: My grandfather has a big stomach. That's weird because when you hug them, you can't get your arms around. You get half way around. (1/18 pp. 3-4 T29)

Angela had the necessary conceptual background for the word even though she could not recognize it in print. I also noted her inability to recognize known words in print during book discussion groups when she served as vocabulary enricher. In these sessions she would ask her peers to pronounce words for her.

Outside Sources. Self-report data provided evidence of Angela's reliance on others to pronounce and define words for her. She mentioned this on several different occasions, such as during the situated think aloud sessions, during both the pre- and post-interviews, and in the questionnaire survey. Furthermore, Angela did not consult the dictionary during the think aloud sessions. She claimed that she rarely used the dictionary as a word learning strategy. In fact, when she served as vocabulary enricher in the multicultural book discussion groups, she found unfamiliar words but never used the dictionary to write definitions. She chose to ask group members for word meanings.

Schematic Connections

Angela's schematic connections for the six targeted words remained within the boundaries of the text. She demonstrated no evidence of extended schematic connections with these self-selected words. The only exception was her
response to the word *protruding*, which is one that I asked her to discuss (refer to pages 255-256 for the transcription). In this episode, she made an extended schematic connection when she used her grandfather's stomach as an example of a *protruding* stomach.

Her text-bound schematic connections for her six targeted words included references to both sentence content and passage content. Once she focused her attention beyond word pronunciation, her thoughts stayed close to the characters and their actions. She did not relate any of these episodes to her own past experiences.

**Generated Word Meanings**

Angela constructed only one acceptable word meaning out of six word learning episodes when she decided that *surges* in J. Nixon's *The Other Side of Dark* could mean "on and on." Although not a precise meaning, it represented one layer of understanding that fit the passage context. It did not interfere with her reading. Angela was unable to produce valid word meanings for the rest of the words. She used synonyms and brief phrases for definitions even though meanings were inaccurate.

As Angela tried to construct meaning for these targeted words, I noticed that on two occasions she talked through several word meaning transformations. Angela's encounter
with the word *hulks* in following passage illustrates this feature of her word learning ability.

For several hours they rode up Snowslide Canyon, crossing many of the wide, grassy paths among the sun-whitened *hulks* of spruces ripped from the edges of the slides high above. Hobbs, W. *Bearstone*, p. 90)

Because she had no difficulty with the pronunciation of *hulks*, she turned her attention to the sentence content.

Angela's understanding of the word *hulks* changed from "steeper" to "mountains or roads" as she talked through
these meaning constructions. She remained close to the sentence content, especially the segment that came right before the word. She never considered examining sentence content after the word, which actually provided more clues for the word hulks.

The second episode in which Angela employed word meaning transformations occurred with the word qualms. However, I did not include this session as part of the overall analysis of her independent word learning strategies, because I overstepped the boundaries of my objective stance by providing a guided prompt. Yet, I feel it is necessary to mention this episode, because it clearly shows what Angela can do with some scaffolding. She targeted this word from the following passage:

I had a few qualms at first about how Caroline and Julia would get along together. Julia was so different from all of our school friends that I still felt sort of awkward with her myself. (Duncan, L. Summer of Fear, p. 55)

Because she could pronounce this word just as she did with the word hulks, Angela was free to explore and construct meaning in a confident manner as shown in this excerpt:

Angela: Qualms.
Researcher: Tell me what you are thinking.
Angela: What the word means and where it goes along with my reading.
Researcher: Why don't you read the sentence out loud?
Angela: "I had a few qualms at first about how Carolyn and Julia would get along together."
Researcher: Keep reading.
Angela: "Julia was so different from all of our school friends that I still felt sort of awkward with her by myself."
Researcher: Okay. Talk to me. What do you think?
Angela: That maybe there are like questions or how they are going to get together.
Researcher: What do you mean by questions?
Angela: Like are they going to get together or are they not. Like she's thinking in her head how is she like going to get along with her friend.
Researcher: So what does that tell you about the word qualms?
Angela: That she might be thinking in her head.
Researcher: That she might be thinking in her head. What else can you tell me?
I had a few qualms at first about how they would get together. "I had a few qualms at first about how they would get together."
Researcher: What do you think?
Angela: Ideas.
Researcher: She had a few ideas. Keep talking.
Angela: Maybe like an uneasy feeling.
Researcher: An uneasy feeling?
Angela: Yea. Like how sometimes you know if you don't know if they like each other or not. (10/19 p. 7 T13)

In spite of remaining sentence bound, Angela talked through several meaning transformations. At first, she equated the word qualms with questions the character had, followed by the notion that the character was "thinking in her head." Then Angela tried to make a connection to "idea" and finally concluded that qualms had something to do with "uneasy feelings." Perhaps talking through the word meaning constructions with guided prompts gave Angela support she needed to arrive at an appropriate understanding of this word. Her ability to pronounce it correctly freed her to mobilize other word learning strategies.

Another feature of Angela's generated word meanings was her use of syntactically correct synonyms or phrases. She employed this tactic during two events when she defined
targeted words with words and phrases that could be substituted for the word in the sentence. For example, her description of *qualms* as "ideas" or "uneasy feelings" fit the syntax of the sentence. Although she incorrectly defined *hulks* as "roads," it still fit the surface structure of the sentence up to the targeted word.

**Summary**

Angela's overreliance on word pronunciation along with her inability to decode words automatically limited the parameters she set for exploring word meanings during self-sponsored reading. I noticed that she seemed to equate knowing a word with being able to pronounce it. If she knew how to say the word, she then searched for meaning clues within the boundaries of the text. For the most part, she remained in close proximity with the word and made only text-bound schematic connections. As a result, her generated word meanings were inaccurate, yet she did not feel that they interfered with her reading.

Although she agreed that vocabulary was important, Angela also admitted that she was "slow in certain places and definitions and words are one of them." She felt that asking someone about unfamiliar words or skipping over them were sufficient word learning strategies. In fact, during her final interview, Angela stated that she liked her way of handling unknown words and did not want to change. Her
weakness in vocabulary acquisition did not present an overwhelming problem to her. Yet, her actions during the situated think aloud sessions indicated that with practice and guidance, she could refine her ability to analyze content to help her derive word meanings. These episodes illustrated what she can do and not necessarily what she actually does as she engages in personal reading.

**Heath**

**Introduction**

Heath demonstrated adequate literacy behaviors as well as a healthy interest in reading. Although he preferred informational books to narrative texts, he chose only fiction books for Sustained Silent Reading. These selections ranged from easy books, such as *My Teacher Glows in the Dark* by Bruce Coville, to more challenging texts, such as *The Lord of the Flies* by William Golding.

Professing a strong belief in the importance of learning new words, Heath felt that he learned new words from books he reads and from his mother who is always willing to explain new terms to him. He liked to learn new words and felt that he learns many of them on his own. On the other hand, he did not think that teacher discussions of new words as a prereading activity are very helpful. Heath's self-proclaimed repertoire of independent word learning strategies included trying to pronounce the word correctly, rereading passages containing unknown words, and asking the teacher for help.
Heath used multiple strategies as he constructed word meanings. Overall, he had no difficulties with pronunciation and maintained a consistent use of passage context in each think aloud episode. This strategy selection may have been the result of somewhat easy trade books containing minimal vocabulary loads.

As an average reader, Heath used contextual analysis more frequently when he had some partial knowledge of words. He resorted to word appearance with totally unfamiliar words. His schematic connections remained passage bound with no evidence of extended or analogous reasoning.

Word Learning Strategies

Content Analysis. Heath's primary strategy for constructing word meanings during these think aloud sessions was the use of content analysis at sentence and passage levels. He explored passage content for thirteen words and remained at the sentence level for five words (n=22). I observed the following conditions and behaviors as he searched through passage content for word meaning clues:

1. Heath used other strategies with six of the thirteen words.

2. The direction of his passage explorations occurred either before or after the targeted words. He used both directions for two words and used one direction for the remainder of the words.

3. Heath generated an equal number of correct and incorrect word meanings. He constructed two generalized word meanings.
4. He consulted the dictionary for two words.

5. He claimed to have little or no partial knowledge of the targeted words.

6. The words were unfamiliar words representing familiar concepts. The one exception was the word octave.

The most frequent strategy Heath mobilized in conjunction with passage content was a focus on key words and phrases which helped him consider meaning possibilities. For example, in the following excerpt Heath targeted the word quivering:

The narrow entryway was dark except for the flickering orange light from a candle on a low table. In the quivering light, Brenda could see sheets of cobwebs over the doorway. (Stine, R. L. Halloween Night II, p. 149)

After reading the passage, he concentrated on the key word "flickering" in the previous passage as he talked about the meaning of quivering.

**Researcher:** Tell me about that word.

**Heath:** I think it's like...well I'm just guessing but from what it says about the flickering orange light, I think it might just be kind of a flickering...like a synonym or something.

**Researcher:** A synonym for...

**Heath:** Quivering.

**Researcher:** What does that mean? How would you explain it in your own words?

**Heath:** Blinking or shaking.

**Researcher:** What makes you say that?

**Heath:** From the word up there.

**Researcher:** From the word flickering?

**Heath:** Yea. Flickering.

**Researcher:** So if you had to give me a definition of quivering, you would tell me that it means...

**Heath:** Like blinking or shaking or kind of unsteady maybe. (11/27 pp. 4-5 T22)
An example of Heath's use of key words and phrases in passage content after the targeted word is illustrated in the following context with the word *somber*:

_Somber organ music floated from the living room._  
Funeral music, Brenda thought. Low and mournful.  
(Stine, R. L. _Halloween Night II_, p. 149)

In this episode Heath focused on the key phrase "funeral music" to help him decide that *somber* had something to do with "sad." He made an extended schematic connection in order to relate the sadness of funeral music to *somber*.

As evident in the aforementioned examples, Heath searched for word meaning clues either before or after the targeted word in each of these episodes. He referred to previous passage content for seven words and the ensuing content for four words. He searched for clues in both directions with two words (n=13). The word *drawled* in the following passage provides an example of Heath's word learning behavior as he looked before and after the targeted word:

_But that was before I got a good look at the inside of his head—which was less frightening and more sad that I ever would have guessed. _
"Well, since you asked..." I _drawled._
"Peter," snapped Susan, "for five months every kid in Kennituck Falls has been dying to know what happened to you after you went off with Broxholm. Stop stalling and tell the story, or you're going to be very sorry!"
(Coville, B. _My Teacher Glows in the Dark_, p. 2)

As he searched the passage before and after the word *drawled*, Heath talked through several word meaning transformations in order to arrive at a plausible definition.
Heath: I think it's like a gesture.
Researcher: What gives you that idea?
Heath: Well...I think just the words "I have guessed and well since you asked" tell me it's like a sigh or something. I'm not sure.
Researcher: What are you doing to help yourself figure out the word?
Heath: Well, I read more around it. Like the paragraph it was in and like..."Peter," snapped Susan, "for five months every kid in Kennituck Falls has been dying to know what happened to you after you went off with Broxholm. Stop stalling and tell the story, or you're going to be very sorry." So I think it is some type of gesture. I'm not sure.
Researcher: What do you mean by gesture?
Heath: Like rolling your eyes or sighing or well not like you know like kind of a body language thing.
Researcher: What gives you the idea that it's a body language thing?
Heath: Well, he's like telling a story or something. So I think it's just my feeling. (10/30 pp. 4-5 T17)

I noticed that Heath relied only on passage content for this word and did not activate other strategies. He showed no evidence of considering the language of the text as a possible source of information. This strategy would have enabled him to think about the way in which the character was speaking.

As Heath concentrated on passage content, he generated both correct and incorrect word meanings. He also constructed generalized word meanings for two words. Some examples of correct meanings included "deal with or to handle" for cope, "flickering, blinking, unsteady" for quivering, and "sad" for somber. Some incorrect word meanings were "gesture, sigh, a body language thing" for
drawled, "depression, depressed like" for coolly, and "intelligence" for fervor.

It was only with the word fissure in the following passage that Heath could not generate any meaning on his own:

"A fissure vein of ore is what it is. Ore's the rock the gold is in. You see, gold is usually mixed with other minerals in veins that run through the mountain. If you find a good fissure vein, it'll never give out on you like a fault will." (Hobbs, W. Bearstone, p. 90)

In fact, as he examined passage content after the word, Heath's response focused on the value and purpose of the word instead of its meaning.

Researcher: Tell me about the word.
Heath: I don't know. I don't know. I think that you could take the word out and it would mean...the sentence would be almost the same.
Researcher: Okay. What else?
Heath: Uh...well I want to look it up.
Researcher: Why?
Heath: Because it's questionable. I don't know anything about it.
Researcher: Would you do this on your own?
Heath: Yes. (2/6 p. 5 T32)

Heath's idea of omitting the word demonstrated his knowledge of language structures and, to some extent, his ability to discern between words that are central to the story and those that are not. However, his uncertainty about this one particular word resulted in his use of the dictionary. In a similar episode with the word centrifugal in Indiana Jones and the White Circle by M. Caitlin, Heath figured the word was important enough to look up in the dictionary only after

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he perused the passage content and considered its value to the story.

Overall, Heath claimed to have little or no partial knowledge of words for which he explored passage content. They were unfamiliar terms that represented familiar concepts with the possible exception of the word *octave* in W. Golding's *The Lord of the Flies*. He admitted having some knowledge of the word *cope* in *My Teacher Glows in the Dark* by B. Coville but claimed to use passage content to confirm his meaning of the word.

Heath remained at the sentence level with content analysis as he examined five words (n=22). I noted the following conditions and behaviors in his think alouds with these words:

1. Heath used other strategies with four words (n=5).
2. Sentences containing targeted words were conceptually loaded but contained subtle word meaning clues. One sentence contained obvious clues.
3. Heath's generated word meanings were varied.
4. He used the dictionary with one word.
5. Heath had partial knowledge of two words for which he produced generalized meanings.
6. The targeted words were unfamiliar words representing familiar concepts.

Heath mobilized other strategies in conjunction with sentence content as he constructed meanings for words he targeted. He used key words and phrases, sound, and
structural analysis. He focused on a key phrase to help him with the word *arroyos* in the following passage:

> The animals went where there was feed, and there were no fences at all until some white men chained the trees out by their roots, dragged them into the *arroyos*, and fenced the northern end of the mesa for beans. (Hobbs, W. *Bearstone*, p. 55)

As Heath initially attended to the sound of the word, he thought it was a Spanish or an Indian word but was not sure of the precise meaning. He then reexamined the sentence content and concluded that the word referred to a place because of the key phrase "dragged them into." He was satisfied with this generalized meaning and did not continue his word meaning exploration.

Sentences containing targeted words were for the most part conceptually rich yet provided only subtle hints as to the meanings of these words. Only one sentence contained enough clues to help Heath construct a legitimate meaning. However, he was unable to do so because he chose to examine word structure in terms of how it fit in the sentence. The word was *tapered* in the following sentence:

> The base tapered down in layers, a little like a kid's toy top. (Coville, B. *My Teacher Glows in the Dark*, p. 9)

Heath claimed that the root word was "tape" and admitted that this information was not helpful. Then he revisited the sentence content and figured that the word meant "hung or kind of dangled there." This wrong interpretation did not confuse Heath as he was ready to continue reading without giving the word another thought.
Heath's self-generated word meanings for these five words were varied. He produced generalized meanings for *billows, limply,* and *arroyos.* He constructed inaccurate meanings for *tapered* and *motif.* Refer to Appendix A on pages 362 through 364 for sentences containing these words. Heath exhibited partial knowledge of two words and no prior knowledge of the others. Furthermore, although the words were unfamiliar, they represented familiar concepts. He was not able to construct an accurate meaning for any of the five words.

In sum, Heath used content analysis as a major independent word learning strategy in ways that produced a variety of word meanings. He was not hesitant in going beyond the sentence level as he widened his search for more clues. Furthermore, he sometimes used other strategies as he examined content, but this behavior was not evident in every think aloud session. In some episodes, he was comfortable using content analysis alone to generate word meanings.

**Word Level Analysis.** Heath demonstrated minimal use of word level analysis during the ten situated think aloud sessions with the exception of two words. As noted previously, his efforts to examine the structure of the word *tapered* in B. Coville's *My Teacher Glows in the Dark* were not productive. He also focused on word appearance as he
searched previous content for the meaning of whizzoh in the following passage:

A school of tiny, glittering fish flicked hither and thither. Ralph spoke to himself, sounding the bass string of delight.

"Whizzoh!" (Golding, W. The Lord of the Flies, p. 12)

Heath questioned whether whizzoh was a word or not and then asserted that it could be "an expression" or "the name of a fish." Other than these two episodes, Heath did not use word level analysis as a major word learning strategy.

Outside Sources. Heath demonstrated proficient use of the dictionary and mobilized this strategy for seven words (n=22). In fact, he used the dictionary as an initial strategy for four of the seven words. These words were Ute, junipers, cynicism, and windrows. Sentences containing these words are found in Appendix A on pages 363 and 364. Dictionary definitions enabled Heath to make legitimate text-bound connections for three words. He also searched for key words in the definitions as a way of constructing meaning. For example, after he read the definition of junipers, he substituted a portion of the definition in the sentence. "So they're probably using 'various evergreen shrubs or trees' for posts" (refer to Appendix A on page 364).

Heath had difficulty with the word cynicism. In this case, entries for cynicism and cynic were too vague to help him formulate an understandable meaning. Therefore, he was
unable to make any connections that helped him with the word.

Schematic Connections

As I closely examined Heath's schematic connections, I noted that he remained text-bound for the majority of the targeted words. In fact, he made fifteen text-bound schematic connections as compared to three extended connections. Furthermore, as I searched for any existing relationship between content analysis and schematic connections, I observed a significant number of text-bound schematic connections occurring at the passage level. This stance enabled Heath to produce the greatest number of correct and generalized word meanings. The least efficient stance was extended schematic connections with sentence content only. He used this stance with one targeted word and produced a generalized word meaning.

In general, Heath remained close to the text as he mobilized his word learning strategies. This stance served him well for some of the words because of his sufficient understanding of the story line and because of text clues. However, I noted that all seven of his incorrect words meanings were related to text-bound schematic connections. For these words, such connections did not help Heath construct legitimate meanings.
**Generated Word Meanings**

Without resorting to outside help, Heath generated six correct word meanings and four generalized word meanings. As stated previously, he also produced seven inaccurate word meanings. Heath exhibited two common behaviors in the way in which he constructed word meanings. He talked through several meaning transformations and he defined some words in syntactically correct ways.

In terms of meaning transformations, Heath employed this strategy for three words as he examined passage content. For example, he elicited several meanings for the word *solemnly* in the following passage:

"Aren't there any grownups at all?"
"I don't think so."
The fair boy said this *solemnly*; but then the delight of a realized ambition overcame him. In the middle of the scar he stood on his head and grinned at the reversed fat boy.
"No grownups!" (Golding, W. The Lord of the Flies, p. 8)

Using surrounding context in a reasonable manner, Heath considered various meanings.

<table>
<thead>
<tr>
<th>Heath:</th>
<th>Researcher:</th>
<th>Heath:</th>
</tr>
</thead>
<tbody>
<tr>
<td>I think it means kind of with...question or like curiosity or something.</td>
<td>What makes you say that?</td>
<td>Or like <em>under his breath</em> or something. Kind of like mumbling.</td>
</tr>
<tr>
<td>Um...before he's like a little guy. And there's this other guy who's bigger and he doesn't...he's like kind of geeky or something like that and he doesn't want to like get him upset or something.</td>
<td>What makes you say that?</td>
<td>Okay. So that would give you reason to believe that the word might mean under his breath?</td>
</tr>
<tr>
<td>Yea. Kind of soft like he's not sure. Because it says &quot;'Aren't there any</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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grownups at all?' 'I don't think so.' The fair boy said this solemnly." So he's not sure.

Researcher: Okay. What else?
Heath: That's all.
Researcher: Would you use a dictionary for this word?
Heath: No. (12/5 p. 6 T24)

Although Heath demonstrated proficient use of context as a word learning strategy, he was still unable to generate an acceptable meaning for solemnly in spite of the plausibility of his suggested meanings.

Syntax was also an important feature which influenced how Heath defined words. By using syntactically correct synonyms and phrases, he constructed both correct and incorrect meanings for seven words. The following excerpts with the accompanying definitions generated by Heath illustrate his use of this strategy:

motif—shadows or silhouettes (12/5 pp. 6-7 T24)

Here the beach was interrupted abruptly by the square motif of the landscape; a great platform of pink granite thrust up uncompromisingly through forest and terrace and sand and lagoon to make a raised jetty of four feet high. (Golding, W. The Lord of the Flies, p. 11)

fervor—intelligence (1/9 p. 8 T28)

"We're going to forget the beast."
"That's right! Yes!"
"Forget the beast!"
If Jack was astonished by their fervor, he did not show it. (Golding, W. The Lord of the Flies, p. 121)

furtive—attentive (1/9 p. 9 T28)

Maurice and Robert skewered the carcass, lifted the dead weight, and stood ready. In the silence, and standing over the dry blood, they looked suddenly furtive. (Golding, W. The Lord of the Flies, p. 124)
In each case, Heath substituted a syntactically correct synonym that kept sentences intact regardless of word meaning accuracy. Because these words sounded right to Heath, he was satisfied with his meaning constructions and did not want to use the dictionary for confirmation.

Summary

As an average learner, Heath mobilized important independent word learning strategies in proficient ways. He demonstrated confidence in using content analysis as he searched for word meaning clues at sentence and passage levels. He relied heavily on passage content shifting his attention to either before the word or after the word. He searched in both directions for two words. The normal procedure was to look in one direction and not both for the same word.

Heath rarely activated any word level analysis during these situated think aloud sessions. Furthermore, he exhibited a tendency to consult a dictionary under certain circumstances. He admitted that he was comfortable using the dictionary during the situated think aloud sessions but would not use it during Sustained Silent Reading for fear of disturbing others. He also asserted that he used the dictionary at home. Therefore, the conditions under which Heath used this independent word learning strategy were when
he had no knowledge of the word and when he could access a
dictionary without drawing attention to himself.

Heath's preferred stance in terms of schematic
connections was text-bound accompanied by the use of passage
content. In this stance he generated the highest number of
correct word meanings. He employed meaning transformations
as he talked through his constructions and frequently
defined words in syntactically correct ways. As a word
learner, Heath possessed a healthy repertoire of independent
word learning strategies that serve him well in spite of
some misconceptions about words. His metacognitive
awareness of these strategies coupled with his choice of
somewhat challenging texts provided valuable support in
helping him develop more sophisticated use of these
strategies.

Findings Across Case Study Participants

Introduction

As outlined by Miles and Huberman (1994), the purpose
of cross-case analysis is to heighten generalizability as
well as to expand understanding of events at hand. They
warn, however, of the danger of broad summaries where
significant patterns of learning behaviors are trivialized or
shrunk to insignificant dimensions. Therefore, as I
examined data across learners, I tried to preserve the
dynamics found in individual case study analysis. In doing so, I found it necessary to highlight specific episodes of word learning behavior as I searched for general patterns across all six learners. This search led to findings which are generalizable for these focal learners. Furthermore, my efforts with cross-case analysis also included interpretive synthesizing of important issues concerning demonstrated word learning abilities of the case study participants. These efforts helped to clarify the existence of patterns of word learning behavior.

To maintain consistency across all levels of analysis, my cross-case examination of case study data included clustering of information around specific word learning strategies, schematic connections, and generated word meanings. I then investigated each broad category by collapsing information into detailed strands of learner behaviors where distinctions among case study participants were still evident. These distinctions kept intact the uniqueness of learning behaviors while maintaining credibility and trustworthiness of cross-case analysis. The following sections will describe these cross-case findings in terms of word learning strategies, schematic connections, and generated word meanings. Also, a final section will provide information about noted similarities and differences in independent word learning behaviors across reading proficiency levels of the focal learners.
Independent Word Learning Strategies Across Focal Learners

Content Analysis. As I carefully examined the ways in which learners mobilized content analysis as an independent word learning strategy, I noted several general features emerging from the data. These features included the following:

1. Learners used multiple independent word learning strategies along with content analysis.
2. Learners demonstrated a tendency to examine passage content in one direction only during a single encounter with an unknown word.
3. Learners sometimes focused on sentence content only.
4. Collectively, the number of times learners used passage or sentence content was roughly equal. Frequency of use for both remained an individual issue.

Because these general findings do not capture the dynamics behind these behaviors, I will clarify and extend each notation in light of how these learners uniquely engaged in content analysis.

Use of multiple word learning strategies was evident with each learner even though the number of strategies varied during each encounter with unfamiliar words. I found evidence that each case study used different strategies with content analysis but not necessarily with every word. The conditions under which learners mobilized various combinations of strategies were unique to the word and context as well as to the idiosyncratic behaviors of the learner.
In at least one episode each, all learners used word appearance and their expectations about these appearances to help them construct word meaning. For example, Marian's comparison of *ides of April* with its similar appearance to "ides of March" helped her to create important connections (refer to Appendix A on page 350). The resemblance between *quavery* and "quivery" helped Lynette in her constructions just as the appearance of *whizzoh* made Heath decide that it was an expression (refer to Appendix A on pages 353 and 363 respectively). On the other hand, word appearance did not help Angela with *bureau* (she thought it needed an "o" at the end) nor did it help Steve who initially thought *phaging* was "paging" (refer to Appendix A on pages 360 and 357 respectively).

Another strategy used by all learners except Angela was structural analysis. Although learners demonstrated some basic knowledge of this strategy, some attempts in conjunction with content analysis were weak. For example, Lynette mentioned that *resiliency* had something to do with "resilient" but admitted that she did not know what either word meant (refer to Appendix A on page 355). Other attempts proved helpful. Brady's knowledge of "astro" meaning "space" enabled him to construct a legitimate meaning for *astrophysicist* (refer to Appendix A on page 359). Shawn's attention to the word part "fatigue" in

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indefatigable served him well in his meaning construction of the word (refer Appendix A on page 358).

The most significant strategy used with content analysis was key words and phrases. Every learner employed this strategy at some point but not necessarily with every targeted word where they examined content. As a group, the learners mobilized this strategy for examining content with roughly forty percent of the targeted words. Resulting word meaning constructions, however, proved to be an assortment of correct, incorrect, and generalized meanings. Nevertheless, the significance of this word learning tactic lies in the fact that it emerged across case study participants as a natural facet of content analysis.

Another important finding dealing with mobilization of other strategies in conjunction with content analysis concerned the display of unique strategies by four learners. These four learners used the following strategies in at least one encounter with an unknown word:

1. Meghan reinforced her word meaning construction for the word *tenement* by examining an adjacent picture. The book contained simples sketches at the beginning of each chapter (refer to Appendix A on page 351).

2. Lynette considered her own expectations about the ways authors write as well as her understanding of the language of text as she explored meanings for *fibrous*, *sinewy*, and *ornate* (refer to Appendix A on page 354).

3. In two separate encounters, Shawn targeted pairs of words where he needed the meanings of each word to help him understand both words. These pairs were "phaging a pathogen" and "annihilated League..."
Admiral Kabul Anak's spaceborne *armadas* (refer to Appendix A on page 357).

4. As Heath analyzed content surrounding the word *fissure* (refer to Appendix A on page 364), he suggested that omitting the word completely would not hinder the overall meaning of the passage. He was not suggesting that he skip over the word. This deliberate omission signified his awareness of the value of those words which carry important meanings in the passage. In this instance, however, he decided to use the dictionary to help him with the word.

In addition to the use of various strategies with content analysis, learners sometimes remained at the sentence level and did not venture away from this immediate context. Overall, however, they used passage content more frequently than sentence content.

I noted that when learners explored the passage, they displayed a tendency to examine content in one direction only during a single encounter with an unfamiliar word. In general, they preferred to examine passage content before the word. In forty-four episodes where they used passage content, they focused on previous content for twenty-six words. In these instances, they referred to immediately occurring events, actions from previous chapters, and key words and phrases in close proximity to the targeted word. Learners looked at content after the words during twelve episodes. When engaged in this direction, they considered the next sentence or the remainder of the paragraph containing the targeted word.
Three learners examined content both before and after a single word during six episodes. In these episodes, learners made rich connections as they shifted directions in their attempts to construct meaning. Yet these rich connections were based upon available text information which determined the extent to which legitimate word meanings surfaced for the learner. For example, Marian looked for clues before and after the word valise in The Three Musketeers by Alexandre Dumas. Although a challenging text, the sentence containing the targeted word and its surrounding passage contained only subtle clues as to the meaning of valise (refer to Appendix A on page 351). Thus, Marian's effort to explore a wide range of content in both directions was not enough to construct a valid meaning for the word. She then consulted a dictionary.

Lynette, on the other hand, used both directions for quavery, triumph, and coddling and successfully constructed correct meanings for all three words (refer to Appendix A on pages 353 and 355 respectively). However, two words appeared in less challenging books with minimal sentence clues and one word appeared in a more difficult text but with obvious sentence clues.

Heath's exploration of both directions resulted in one incorrect meaning and one generalized meaning. For the word drawled, he did not generate a correct meaning from context. Even though the book was easy, the sentence and surrounding
context contained only minimal clues (refer to Appendix A on page 362). On the other hand, Heath encountered the word octave in a more challenging book where the conceptually loaded sentences provided at least subtle clues that enabled him to formulate a general meaning for the word (refer to Appendix A on page 363). Thus, as these three students examined passage content in both directions, they constructed an array of word meanings based upon the richness of available clues and their ability to infer meaning.

At one time or another, each learner focused on sentence content only. Regardless of difficulty level of the book, sentences containing targeted words either contained minimal, subtle, or obvious word meaning clues. In other words, sentences in easy books provided minimal, obvious, or subtle clues. This was also true for more challenging books. For example, Heath targeted the word arroyos in the following sentence from Bearstone by Will Hobbs, a relatively easy book:

The animals went where there was feed, and there were no fences at all until some white men chained the trees out by their roots, dragged them into the arroyos, and fenced the northern end of the mesa for beans. (p. 55)

This sentence offered subtle clues for helping Heath figure out the meaning of arroyos. Yet, it contained sufficient conceptual information to enable Heath to construct a generalized meaning for the word. More challenging texts also contained sentences where only subtle word meaning
clues were available. For example, Shawn targeted the words *undeterred* and *indefatigable* from the following sentence in *The Mercenaries* by Bill Baldwin:

> Brim had seen Onrad's courageous move raise a predictable hue and cry from CIGAs all over the Empire, but the Prince remained *undeterred, indefatigable* in his belief that the new ships constituted the absolute minimum counterforce necessary to insure survival of civilization. (p. 9)

Again, the sentence provided enough conceptual information to help Shawn construct legitimate word meanings. Therefore, the amount of available information at the sentence level was not dependent upon the difficulty level of the book. In general, learners remained at the sentence level with content analysis when these sentences were conceptually loaded, even though they may not have offered obvious word meaning clues.

During sessions where learners focused only on sentence content, they constructed more correct and general word meanings than incorrect meanings. Altogether, they generated twenty-seven legitimate definitions as opposed to thirteen inaccurate definitions. As I looked closely at incorrect word meanings generated at the sentence level, I noted that most of these meanings fit the sense of the story and did not disrupt comprehension. Learners were concerned with constructing plausible explanations for words. For example, Lynette thought that the word *flippantly* in the following sentence meant "carelessly":

> "Jus' ole Harlan," said T. J. *flippantly* as the expensive car rounded a curve and disappeared, then he
and Clause started down the bank. (Taylor, M. Roll of Thunder, Hear My Cry, p. 47)

When Marian explored the meaning of aloof at the sentence level, she also generated an incorrect meaning. She felt that the word meant "careful and apprehensive" in this sentence:

> It was doubtful whether anyone would have recognized me as the runaway of five years ago and certainly the captain gave no sign, but I held myself aloof.
> (Stewart, M. The Crystal Cave, p. 187)

These examples represent a pattern of inaccurate word meanings across all learners with the exception of Angela. Her incorrect word meaning responses at the sentence level did not fit the overall sense of the sentence. In one episode, her response was compatible with the surface structure of the sentence. She thought that the word hulks could mean "roads" in the following sentence:

> For several hours they rode up Snowslide Canyon, crossing many of the wide, grassy paths among the sun-whitened hulks of spruces ripped from the edges of the slides high above. (Hobbs, W. Bearstone, p. 90)

Regardless of resulting word meanings, all learners at one point remained at the sentence level with their content analysis. In general, they did so with conceptually rich sentences and with sentences containing subtle word meaning clues.

Conversely, during many sessions learners ventured out into the passage content when sentences containing targeted words provided scant information to help them build specific word meanings. Again, the difficulty level of the book was not an issue. For example, Marian used passage content to
help her with the word *aphorisms* in *A Thief of Time* by Tony
Hillerman, because this sentence offered minimal word
meaning clues:

For Chee this proved, as his uncle's *aphorisms* often
did, to be true. (p. 83)

Learners resorted to passage content in many similar
instances where sentences containing targeted words needed
support from the rest of the passage. Collectively,
learners did not favor one level of content analysis over
the other. Rather, the extent to which they stayed at the
sentence level or ventured out into passage content depended
upon the availability of word meaning clues as well as the
learners' ability to make connections. As a result, some
learners used one level more frequently than the other.

In sum, learners mobilized content analysis as an
independent word learning strategy in unique ways. Yet,
they demonstrated similarities in the fact that they
employed other strategies in conjunction with content
analysis. Furthermore, they tended to explore passage
content in one direction only during a single encounter with
an unfamiliar word. Finally, the decision to remain at the
sentence level or to extend the search to include passage
content was an individual matter.

**Word Level Analysis.** As I examined data for word level
analysis across all learners, I noted the following:

1. Word level analysis was used in conjunction with
other strategies.

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2. Word level analysis as an independent word learning strategy served as a primary strategy for two learners.

3. Word appearance was important to all learners.

4. Learners exhibited scant evidence of the use of structural analysis as an independent word learning strategy.

Learners did not use word level analysis alone. During think aloud sessions, they used this strategy along with content analysis and/or reference books with only one exception. When Brady targeted the word sophistication in Jurassic Park by Michael Crichton, he remained fixated on pronunciation and never attempted other strategies. Aside from this episode, learners attempted pronunciation, focused on word appearance, and examined word structure as they explored text content and reference books for word meaning clues.

In general, word level analysis was not the primary strategy for four learners. However, Angela and Brady used word level analysis as an initial word learning strategy when they had difficulty with word pronunciation. In fact, Angela could not elicit even an incorrect pronunciation for three of her six words. She was unable to pronounce bureau, susceptible, and khakis. She made no attempt with the word khakis. Brady, on the other hand, had difficulty with proper names such as LeBeaumariere and Tutankhamen. He also mispronounced words such as "remada" for remuda and pristine with a long sound for the second i. These mispronunciations
did not bother him. Overall, Angela and Brady remained focused on pronunciation which limited their flexibility in mobilizing other independent word learning strategies.

Word appearance was an important aid to word meaning construction for all learners. They made associations with words that contained similar spelling patterns to the targeted word. For example, Marian made a quick connection between the *ides of April* and the "ides of March" just as Lynette saw similarities between *quavery* and "quivery."

With appearance only, Heath felt fairly certain that *whizzoh* was an expression of surprise. In these encounters, word appearance proved to be a legitimate and fruitful strategy. In other encounters, however, it did not help learners. Shawn initially thought *phaging* was "paging" and Brady confused *inherent instability* with "inherited it instantly."

Furthermore, Angela asserted that *bureau* (once I pronounced it for her) needed an "o" at the end of it. Regardless of the outcome, learners used word appearance as a predominant word analysis strategy during these think aloud sessions.

I noted that structural analysis did not surface as a prevalent word analysis strategy. It did not serve as a legitimate strategy for many words. Yet, I observed instances where this strategy was mobilized in maturing ways by five of the six learners. Marian demonstrated proficient use of structural analysis as she made connections between *tenement* and "tenant," focused on "false" in *falsetto*, and
referred to "a company of many nations" for multinational conglomerate. Shawn connected "fatigue" to indefatigable just as Brady knew that an astrophysicist had something to do with "space." I also noted several unsuccessful attempts. For instance, Heath tried to make a connection between "tape" and tapered. Lynette saw a relationship between "resilient" and resiliency but admitted that she did not know what "resilient" meant. Learners knew about this strategy and knew when to mobilize it most of the time.

Outside Sources. I noted two major findings concerning outside sources as I examined data across case study participants. First, five of the six learners used the dictionary to help them construct word meanings. Second, two learners showed a strong reliance on others to provide word meanings. On several occasions, these two learners claimed that they usually asked their mothers to explain unfamiliar words to them. At school, they asserted that they would ask the teacher for help, but this behavior was never observed. Furthermore, they admitted that they would never disturb class members during Sustained Silent Reading by approaching the teacher for help or by getting up to use a dictionary.

A detailed look at the conditions under which five learners consulted a dictionary revealed the following circumstances:
1. They used a dictionary as a primary word learning strategy when they quickly decided that the text did not offer any clues.

2. They were curious about words.

3. They wanted to confirm their correctly generated word meaning constructions.

4. They were confused or uncertain about their constructions.

These different conditions were not exhibited by all learners. They represent a collection of reasons that surfaced as I perused sessions where students used the dictionary. At best, I can say that some students exhibited some of these behaviors at one point or another.

Lynette used the dictionary as a primary strategy when she encountered the word *gait* in *Roll of Thunder, Hear My Cry*, by Mildred D. Taylor in the following passage:

As the men rounded a curve in the road, they became more distinct. There was in the easy fluid *gait* of the shorter man a familiarity that made me gasp. (p. 33)

Initially, Lynette admitted that the sentence structure was puzzling, especially the phrase "There was in the easy fluid *gait*..." She claimed the wording did not make sense and thus hindered her from finding a meaning for *gait*.

Consequently, she chose to consult the dictionary since "the whole sentence doesn't make sense and I kind of want to make sense out of the sentence and stuff." Once she read the dictionary definition, she realized that the author was referring to the manner in which the character was walking.

Heath also used the dictionary as a primary strategy when he felt that the text was not helpful. He displayed this
behavior for the words cynicism, Ute, junipers, and windrows (refer to Appendix A on pages 363 and 364).

Marian used the dictionary when the words piqued her interest. She wanted to find more information about the word diurnal as well as the word conglomerate (refer to Appendix A on pages 351 and 352). Because she displayed an interest in learning new words and claimed to use the dictionary on a regular basis, these actions were accepted as a natural part of Marian's pattern of word learning behaviors. Heath was also curious about the word windrows since he initially thought it was a misprint (refer to Appendix A on page 364).

Several learners used the dictionary to confirm their correctly generated word meanings. After they mobilized other strategies where they constructed legitimate meanings, they wanted some measure of assurance about the accuracy of their predictions. Lynette wanted to check her meaning for the word soulful just as Marian wanted to verify her ideas about poniard and aphorisms (refer to Appendix A on pages 353 and 351 respectively). Shawn also wanted to confirm his meaning constructions for escalation, annihilated, and frigid (refer to Appendix A on pages 357 and 358).

When learners constructed word meanings with less confidence, they referred to the dictionary to clear up their uncertainty and confusion. Lynette was bewildered
when she encountered the word *hamlet* twice in the following passage from *The Car* by Gary Paulsen:

It was to be a normal strike mission. Another *hamlet*, another set of leaders to take out---sanction, neutralize, terminate with extreme prejudice. All names for the same thing---to kill....Paddle up the small stream to the *hamlet*, find the two targets, end them, and canoe back to the patrol boat. (p. 4)

At first Lynette used multiple word learning strategies to help her define *hamlet*.

Lynette: It's *hamlet*. I know it's like a Shakespeare play but I didn't think it's like a word, because it says "It was to be a normal strike mission. Another *hamlet*, another set of leaders to take out..." Maybe like a *hamlet* is like a leader or somebody powerful.

Researcher: What gives you that idea?

Lynette: Because it says "another set of leaders to take out," so like maybe *hamlet* maybe is like a big leader or something.

Researcher: Okay. What else?

Lynette: [Pause--looking at the passage] I just don't think of *hamlet* as being like a leader or something because I just...I don't know what the play is about or anything. I just know that it's like a Shakespeare play.

Researcher: Is that a word you'd look up in the dictionary?

Lynette: Um...no. Probably not because this thing right here...[she's referring to the fact that the passage is the prologue to the story] it hasn't even started the story yet. It's just memories so maybe...I'm figuring...maybe it might be important but not...I don't think it's important enough to look up.

Researcher: Okay. Anything else?

Lynette: No.

[She continues to read until she encounters the second *hamlet*.]

Researcher: You found *hamlet* again?

Lynette: It says "Paddle up the small stream to the *hamlet*, find the two targets, end them, and canoe back to the patrol boat." So...um...that kind of looks different than....because it says
"Paddle up the small stream to the hamlet," but I don't think it's like a dock or anything like that...but it says "Find the two targets." So maybe like the hamlet is where the leaders are or something. Like where they're hiding or something.

Researcher: So you're defining hamlet as a what?
Lynette: I don't know because it's like if their meaning is the same way they did before, then to me it doesn't like make sense. Because it says...at the first it said "another hamlet, another set of leaders to take out."

Researcher: So that first one makes you think that the word might mean...
Lynette: Like a person.
Researcher: A person. And the second one...
Lynette: It makes me think of like a place. You know like when you paddle up the stream to the hamlet like you think of maybe a dock or a boathouse or something like that. But I think they should mean the same thing. Because I mean it's the exact same word and everything.

Researcher: Okay. Anything else?
Lynette: Well...no. Just now it's bugging me so I probably would look it up in the dictionary.

[ Lynette uses the dictionary. ]

Researcher: It says...a small village.
Lynette: So...
Researcher: So...it says okay like if I put the words in it, it would be like "Another small village, another set of leaders to take out." And it says "They paddle up the stream to the small village." So like I guess like I mean I was wrong about the part about "Another hamlet another set of leaders to take out." Like being a person, but like when I talked about how when they paddle up the small stream to the hamlet, I was thinking of like a place so, in a sense, I was right there but I was wrong before.

Researcher: Anything else?
Lynette: No. (1/18 pp. 1-2 T29)
Because Lynette's second encounter with the word resulted in confusion and uncertainty, she consulted the dictionary to find an appropriate meaning that would fit both contexts.

Brady used the dictionary with Tutankhamen, pedestal, ashen, and krama because he was unsure of the meanings (refer to Appendix A on pages 359 and 360). Heath's uncertainty about motif, fissure, and centrifugal caused him to refer to the dictionary (refer to Appendix A on pages 363 and 364). Marian did the same for conglomerate (refer to the Appendix A on page 352).

Learners' responses to dictionary definitions and their skill in using the dictionary varied. Most definitions, as demonstrated by Lynette's transaction with the dictionary definition of hamlet, were helpful. However, there were times when learners were confused by which entry word to use and by which definition to select. Nevertheless, I noted one important behavior exhibited by four learners. As they interacted with dictionary definitions, they would sometimes focus on key words and phrases in the definition and would then substitute these phrases into the context of targeted sentences. Lynette's response to the dictionary definition for hamlet illustrates this point. Heath's reaction to the meaning of junipers in this passage also serves as an example.

"We should finish the fence. So you'll have it before hunting season."
"I'd sure like to see it finished, too, Cloyd, but there's a lot of work left in it, fallin' junipers for posts and whatnot." (Hobbs, W. Bearstone, p. 38)

After finding the dictionary definition, Heath substituted it for junipers by stating "So they're probably using 'various evergreen shrubs or trees' for posts."

In sum, learners relied on outside sources as part of their independent word learning repertoire. They alluded to asking others even though they never asked me to define words for them. When they decided to use the dictionary, they did so to confirm word meaning constructions, to satisfy their curiosity, and to aid in building meaning for confusing words. Angela was the only case study participant who did not use the dictionary.

Schematic Connections

As learners interacted with their targeted words, I noted variations in types of schematic connections they made while exploring word meanings. When learners made references to ideas in the text, I labeled these connections as text-bound. If they ventured beyond the text to personal references, related word or concepts, analogies, or other intertextual links, then I classified these behaviors as extended connections. By examining these connections across all six case study participants, I observed that the most frequent connections were those that remained at a text-bound level. In fact, Lynette was the only learner
with more extended schematic connections than text-bound. As I focused on Lynette's word learning behaviors, I noted that the texts she personally selected for independent reading were not as challenging in terms of conceptual as well as vocabulary load. As a result, her schematic connections included slightly more extended schematic connections than text-bound connections (13 out of 22 episodes).

Because learners relied heavily on content analysis as an independent word learning strategy, I searched for possible relationships between this strategy and the schematic connections made by the learners. I found that learner stances varied. Since the most frequent schematic connections across all learners were text-bound, the most popular stances naturally involved text-bound connections at sentence and passage levels. Shawn and Brady preferred text-bound connections at the sentence level while Marian, Angela, and Heath used more text-bound connections with passage content. Lynette favored extended schematic connections at the sentence level, and no learner favored extended connections with passage content.

A deeper look at these stances revealed another layer of similarities and variations in how learners chose to interact with targeted words. Both Shawn and Brady used a text-bound, sentence level stance as they encountered unfamiliar words in challenging books that were loaded in
terms of concepts and vocabulary. As a proficient and avid reader, Shawn had selected mature books to read. Brady, on the other hand, an average reader who does not spend much time engaged in reading, also chose challenging books, such as *Jurassic Park* and *Sphere* by Michael Crichton. Yet, regardless of this difference in reading behavior, both learners adopted similar stances in their transactions with targeted words.

I noted a similar finding with Marian, Angela, and Heath who favored text-bound, passage level stances. They also differed in reading proficiency and choice of texts, yet they assumed similar stances as they interacted with unfamiliar words. Marian, a strong and avid reader, selected challenging books to read. Angela, a less proficient reader who rarely finds time to read, chose rather easy books. Heath, an average reader who likes informational books, selected a variety of books in terms of difficulty level. It seems likely that stances taken by learners in terms of schematic connections and content analyses are determined more by what learners perceive as available text information than it is by their proficiency or level of text difficulty.

Another facet of investigation with schematic connections involved a close look at the most effective combination of schematic connections and content analyses in terms of correct word meanings. I found that four learners
constructed the most number of correct meanings when they made text-bound connections at the passage level. Two learners created more correct meanings with text-bound connections at the sentence level. Again, Lynette was the only learner who was more productive in constructing accurate word meanings with extended connections at the passage level. Conversely, the least productive combination across all learners proved to be extended connections at the sentence level. Although Shawn and Brady were successful in constructing the greatest number of legitimate word meanings with text-bound connections at the sentence level, this stance also proved to be one that produced inaccurate word meanings across all learners.

In sum, learners favored text-bound schematic connections even though five of them employed extended connections occasionally. Angela was the only learner who made no attempts at extending her thoughts beyond the text. Learner stances in terms of schematic connections and content analyses varied depending upon how learners perceived the availability of word meaning clues in the text. Furthermore, the most productive stances as measured by the number of correct word meanings also varied across case study participants.
Generated Word Meanings

As I examined the word meaning constructions of the learners, I focused on actions which excluded references to the dictionary or other outside sources. I classified these constructions as correct, incorrect, or generalized. A generalized word meaning represented at least one layer of understanding about the word even though it was more global in nature. Overall, learners generated word meanings for 83 words without referring to the dictionary (n=92). They produced approximately the same number of correct word meanings (n=32) as incorrect word meanings (n=33). Generalized word meanings totaled eighteen.

Through multiple readings of the data, I observed the following behaviors across all learners:

1. Learners defined words in ways that paralleled how the teacher defined words during instructional episodes.

2. Learners used synactially correct synonyms and phrases in their attempts to construct legitimate word meanings.

3. Word meaning constructions sometimes evolved through several meaning transformations.

The ways in which learners articulated meanings for words were similar to that of the teacher. They frequently used synonyms, brief phrases, and examples as they expressed their understanding of targeted words. They favored synonyms as the most expeditious way of articulating their thoughts about these targeted words. They also used brief phrases more often than examples or situated explanations.
One important feature of the way in which learners defined words was the use of syntactically correct synonyms and phrases. At one time or another, each learner demonstrated this tendency to use words and phrases as substitutes for targeted words within the sentence structure. In these episodes, the learner's reliance on syntax as a focal point for meaning construction served as a way to confirm their predictions. These syntactically correct words and phrases represented both right and wrong interpretations as well as general ideas about targeted words. For example, Lynette demonstrated this behavior when she targeted the word *sinewy* in the following passage:

> Mama was stooped over a low cotton branch. She stuffed one last puff into her bag and straightened. She was tawny-colored, thin and *sinewy*, with delicate features in a strong-jawed face, and though almost as tall as Big Ma, she seemed somewhat dwarfed beside her.  
> (Taylor, M. Roll of Thunder, Hear My Cry, p. 33)

In this episode, Lynette decided that *sinewy* meant "bony," since she used the key word "thin" as a major connector. The word "bony," although inaccurate, fit the syntax of the sentence. Lynette also used syntactically correct synonyms when she paired *scrawled* with "scribbled," *coddling* with "babying," and *flippantly* with "carelessly" (refer to Appendix A on pages 353 and 355).

Other learners also used this strategy for defining words. Shawn used syntactically correct synonyms and phrases when he substituted "armies" for *armadas* and "determined" for *undeterred* (refer to Appendix A on pages 300).
Marian liked "regular" for *diurnal* just as Brady used "stop" for *impede* (refer to Appendix A on pages 351 and 359 respectively). Angela tried "uneasy feelings" for *qualms* (refer to Appendix A on page 360). Even Heath claimed that the author could have substituted "a narrow crack or opening" for the word *fissure* after he used the dictionary to help him understand this word (refer to Appendix A on page 364). Overall, I found substantial evidence of the use of this tactic as part of each learner's repertoire of independent word learning strategies.

Word meaning constructions elicited by the learners sometimes evolved through several meaning transformations. It is likely that this occurred as a result of the influence of the think aloud sessions and did not really represent naturalistic behavior. Nevertheless, at some point all learners toyed with various meanings as they tried to make sense of targeted words. The resulting transformations were sometimes closely related choices, such as Lynette's ideas about the word *chiffonier*. She worked her way through "desk," "dresser," and "vanity" (refer to Appendix A on page 354). On other occasions, these transformations represented different ideas as learners experimented with various options. For example, as Shawn explored meanings for *annihilated*, he thought of "inhaled," "consumed," "dismantled," and finally "destroyed" (refer to Appendix A on page 357).
The number of ideas which emerged varied with each situation. Furthermore, these changes also occurred when learners referred to the dictionary and then had to make modifications so that their own generated meanings became more compatible with dictionary definitions. Sometimes learners rationalized their responses in ways they considered synonymous with the dictionary. For instance, Marian was convinced that her notion of *diurnal* as meaning "regular" was accurate. After consulting the dictionary and discovering that it meant "daily," she still felt her ideas were sufficient. "My first idea about the word that it was regular...diurnal is daily so that could be just like regular."

Thus, all learners generated correct, incorrect, and generalized meanings for their targeted words. They defined words in ways similar to that of the teacher. Furthermore, they demonstrated a tendency to use syntactically correct synonyms and phrases regardless of the accuracy of their constructions. Finally, they engaged in meaning transformations with some words as they experimented with possible meanings for targeted words.

**Findings Across Levels of Reading Proficiency**

Learners practiced the independent word learning strategies they were taught at some point in their past. What emerged from these situated think aloud sessions were
indications of what these learners could do as they interacted with unfamiliar words during self-sponsored reading events. As I examined data against the backdrop of reading ability, these similarities in behavior patterns were evident regardless of proficiency in reading:

1. All learners demonstrated ability to mobilize a variety of strategies during one encounter with an unfamiliar word.

2. Incorrect word meanings occurred across all ability levels.

3. Syntax was important as all learners experimented with newly constructed word meanings.

4. All learners used key words and phrases as they explored content.

5. Learners focused on text-bound schematic connections.

6. Self-report data indicated that learners were cognizant of which words disrupted the flow of the story.

I carefully documented supporting evidence for these behaviors in the previous descriptions of each case study participant.

I also noted important differences in the ways in which proficient readers exhibited more sophisticated use of strategies as they explored meanings of targeted words. I observed the following behaviors:

1. Proficient readers demonstrated procedural and conditional knowledge in that they knew how and when to mobilize other strategies.

2. Proficient readers used content analysis as an initial strategy for the majority of encounters with unfamiliar words.
3. They were not overly concerned with pronunciation.

4. They showed a willingness to consider several possible meanings and therefore took risks in their meaning constructions.

5. They tended to use the dictionary as a last resort.

6. They showed an interest in learning new words. At some point in the think aloud sessions, Marian, Lynette, Shawn, and to some extent, Heath, exhibited these patterns of behavior. Shawn's interactions with annihilated and armadas in the following passage serves as an example:

   The CIGAs' avowed goal was dismantling—from within—the mighty Imperial Fleet that had nearly annihilated League Admiral Kabul Anak's spaceborne armadas. All, of course, in the name of 'Peace.'

   (Baldwin, B. The Mercenaries, p. 9)

In the following excerpt, Shawn used several word learning strategies, was not concerned with pronunciation even though he continually mispronounced annihilated, and considered several word meaning possibilities.

   Shawn: I think annihilated [pronounced "anilated"] could be like inhaled or something.
   Researcher: Why?
   Shawn: Because it says "the mighty Imperial Fleet that had nearly annihilated League Admiral Kabul Anak's space...spaceborne armadas...which could be armies.
   Researcher: Okay.
   Shawn: "All, of course, in the name of space." So it could be like they nearly consumed or dismantled their armies. Armadas could be like armies.
   Researcher: What makes you think that?
   Shawn: Because it says they were talking about the CIGAs which is Congress for Intra-galactic Accord, and it says they "had nearly annihilated League Admiral...spaceborne armadas. All, of course in the name of peace." So they
could have either consumed or dismantled or taken away his armies.

Researcher: All right. So you're saying that this word [annihilated] means...

Shawn: Like consumed or taken away or nearly destroyed or something. And armadas means armies.

Researcher: Okay.

Shawn: Now I want to look them up in the dictionary.

[He looks up annihilated but not armadas.]

Researcher: Why not armadas?

Shawn: Because I pretty much figured out what armada means.

Researcher: You feel safe about armadas?

Shawn: Yea. And if I figure out what annihilated [pronounced anhilated] means...

[He is looking up the word.]

Shawn: It says to cause to be of no effect; to destroy the substance or force of. That's a and b. And to regard as of no consequence; to cause to cease to exist; to destroy a considerable part of; to vanquish completely.

Researcher: So?

Shawn: So I was right. I said it meant like destroyed or consumed or took up...

Researcher: All right. Anything else?


Shawn's flexibility in using his word learning strategies served him well as he constructed and confirmed his ideas about these words.

Less proficient readers exhibited the following behaviors:

1. They had more difficulty with pronunciation. They frequently used word level analysis as an initial strategy and remained focused there for extended periods of time without making much progress.

2. They preferred to rely on others to provide meanings and pronunciations of unfamiliar words. From self-report data, this proved to be their strategy of choice in addition to skipping words. Both techniques limited the amount of practice they did with other strategies.
3. They were not persistent in searching for word meanings.
4. They were not interested in using the dictionary.

Both Angela and Brady exhibited these patterns of behavior over ten think aloud sessions. In addition, during several meetings Angela did not target any words to discuss. She claimed that she knew all of them. Angela's interaction with the word bureau in the following passage gives support to the above mentioned findings.

But people just don't turn on lights in rooms where someone else is sleeping, or pretending to sleep, and so I undressed in the dark, groping through two different bureau drawers for my pajamas because I couldn't remember how I had arranged things, and crawled into the other twin bed. (Duncan, L. Summer of Fear, p. 52)

As she talked through her actions, Angela remained focused on pronunciation and wanted to ask the teacher for help.

Angela: "I undressed in the dark, groping (she said grouping) through two different...[pauses at bureau and attempts to pronounce it]...bu...bu...drawers for my pajamas because I couldn't remember how I have arranged things, and crawled into the other twin bed."

Researcher: What do you know about that word?
Angela: Nothing.
Researcher: Is there anything there that would help you?
Angela: Umm...probably go ask the teacher what it meant.
Researcher: Anything else?
Angela: Keep reading the sentence over to see if I can actually get it.
[long pause]
Researcher: What's going on in your mind right now?
Angela: Trying to figure out how to pronounce the word.
Researcher: Do you have any idea of what it is referring to?
Angela: I just like...two different drawers like one is here and one is there [pointing to side by side].
Researcher: What gives you that idea?
Angela: Because it says drawers and it says different.
Researcher: What else is going on in your head?
Angela: I'm still trying to figure out how to figure it out.
Researcher: Do you mean the pronunciation?
Angela: Yea. (10/19 pp. 5-6 T13)

Angela's reliance on others to provide word meanings coupled with her habit of skipping over unfamiliar words limited her ability to use other independent word learning strategies in more effective ways. Brady too preferred to ask others before attempting to construct meaning on his own.

By focusing on reading proficiency of the learners, I observed both similarities and differences in word learning behaviors. Proficient readers were naturally avid readers and therefore had many opportunities to practice their independent strategies. On the other hand, less proficient readers did not spend as much time engaged in free reading and therefore limited their practice with these strategies. Furthermore, skipping words and relying on others proved to be strategies which also inhibited opportunities to consider other ways of constructing word meanings on their own.

Recapitulation of Cross-Case Findings

This cross-case examination revealed generalized patterns of independent word learning behaviors which hold for the six focal learners in this study. They employed
several word learning strategies during their transactions with unfamiliar words. As learners used content analysis with targeted words, they sometimes remained within sentence boundaries and at other times ventured into the passage itself. They tended to explore passage content in one direction only during a single encounter with an unknown word. Also, word level analysis and the practice of asking someone were important to less proficient readers. Accomplished readers were more inclined to use the dictionary to confirm word meaning constructions, satisfy their curiosity, and clarify confusing words.

In terms of schematic connections, these learners showed a preference for text-bound schematic connections, even though they occasionally made some extensions beyond the text. Learner stances involving schematic connections and content analysis shifted according to how learners perceived the availability of word meaning clues in the text. All learners generated correct, incorrect, and generalized word meanings for their targeted words across variations in stance. They favored syntactically correct synonyms and phrases and sometimes experimented with meaning transformations. Finally, comparisons based upon reading proficiency revealed that accomplished readers exhibited more sophisticated ways of using the same strategies. Less proficient readers were inclined to depend upon outside support to help them with unfamiliar words. They skipped
unknown words when they could not ask someone. Information in the following section will reflect the focal learners' voices as they expressed their ideas about their own word learning behaviors.

Vocabulary Acquisition From the Learners' Perspectives

In this section, I will present evidence of focal learners' perceptions of their own word learning behaviors as well as their perceptions of the literature-based reading program. Self-report data from final interview sessions and cumulated data from situated think aloud sessions provided important information about how learners perceived themselves as word learners and what they felt they learned in this literature-based program. I noted the following points across all focal learners:

1. Learners were clearly aware of the procedures they used when they encountered unfamiliar words. This procedural knowledge followed a specific order for the six learners. All of them were aware of their preferred pattern.

2. Learners perceived strategy development as something they learned in earlier grades.

4. They considered SSR (Sustained Silent Reading) to be a time when using outside sources was not an appropriate word learning strategy.

5. Learners felt that vocabulary was harder this year.

6. They believed that the reading program gave them time to practice.
7. They felt that they learned new words in the program.

In terms of procedural knowledge of word learning, learners voiced an awareness of their reactions to unfamiliar words. They admitted that they followed a specific order in mobilizing their word learning strategies. Yet, across learners, this order varied. For example, all learners except Angela claimed to use context analysis as an initial step. Angela preferred to ask someone. When context provided minimal clues, then learners mobilized a variety of tactics. Marian claimed to examine the word itself, Lynette would skip it, Shawn liked to compare words to other known words, and Brady and Heath would resort to outside sources. As a final effort, Marian, Lynette, and Shawn would also rely on outside sources where they would consult a dictionary before asking someone. Heath also expressed a tendency to use the dictionary first. Brady, however, claimed he would ask someone before using a reference book.

Angela's major procedure was to skip words. She also admitted that word learning was not her forte.

Researcher: You figured that most of your word meanings [during the think aloud sessions] were not right?

Angela: Yea.

Researcher: Why?

Angela: Because I don't know like all these definitions, because I'm slow in certain places, and definitions and words are one of them. So...

Researcher: How do you know that?

Angela: Because I fight it all my life and I can never do it. And I've tried but...
In general, learners perceived strategy development as something they learned in earlier grades. They made limited associations with learning strategies in their current reading class. For example, when I asked Lynette how she learned her strategies, she gave the following response:

I kind of just made them up on my...well like we learned them in elementary when we were studying for TAAS [Texas Assessment of Academic Skills]. You know they taught us to...if there's an unfamiliar word, look at the sentences around it. And then I think the part about deciding to skip it or to ask somebody, I kind of did that on my own, but the dictionary, you know, you just learn that in elementary, like how to look up words in the dictionary or something. (2/26 pp. 1-2 T33)

Heath responded in the following manner:

Researcher: How did you learn those strategies?
Heath: Well, I just learned how to look in the sentence, because when I was in fifth grade or whatever, I would always be told to look in the dictionary or in the sentence if I didn't understand the word.

Researcher: Where else did you learn that?
Heath: Just by doing it. (2/29 p. 20 T33)

Other learners replied in similar fashion in terms of how they acquired their repertoire of word learning strategies. Learners also believed that even though books were getting harder to read, they felt that their word learning strategies still served them well.

Overall, case study participants responded in different ways when they considered what they gained from the seventh grade reading program. Yet, they reacted in similar ways concerning their actions during Sustained Silent Reading.
They felt that it was not an appropriate time to seek outside help in clarifying unfamiliar words. Since on-task behavior meant engagement in reading, they refrained from using a dictionary or asking the teacher or others for help.

Their perceptions about what they learned this year in reading were diverse, even though all felt that they learned new words and that words were becoming more difficult. Marian asserted that her techniques still worked, whereas Lynette claimed that the teacher taught her to "keep alert for like words we haven't seen." Shawn perceived subtle messages from the teacher as shown in the following excerpt:

Researcher: Have you learned any new strategies?
Shawn: Well, actually I have sort or and sort of not. Because during the teaching sometimes, it'll sort of like refer to it but she's not actually saying it. It's like if you read this, the context clues are one sentence. If you go back to two or three sentences before that and read through there again, you'll get a better feel for the context clues and that. So you don't just use the one sentence the word is in. Plus you apply that.

Researcher: She implies it but she doesn't say it?
Shawn: Yes.
Researcher: All right. What else?
Shawn: That's about all that I have learned. Reading techniques...because all the other ones have been like dress rehearsals like I've already learned.

Researcher: What do you mean by dress rehearsals?
Shawn: I've already learned them and we're going over them to make the foundation stronger.

Researcher: So when she discusses the words, it kind of refreshes your memory.
Shawn: Yes. Exactly. (2/22 p. 36 T32)
Brady had a different response about what he learned this year.

Researcher: What have you learned this year about vocabulary? What are some things you have learned as a seventh grader in reading?
Brady: To ask someone. I usually didn't ask nobody about it.
Researcher: To ask someone. You learned it this year?
Brady: Well, Mrs. Moore said that we should ask somebody if we don't know what the word means.
Researcher: Okay. So before that, you never really did?
Brady: Well, I knew about it but I never really did it.
Researcher: Even at home?
Brady: Yea. Even at home I never really did it.
Researcher: So this is something you learned this year. What else?
Brady: It's not always going to be easy.

Angela's perceptions of the reading program were also different.

Researcher: What have you learned about words?
Angela: Ah...I don't know.
Researcher: Have you learned anything? Have you learned a new technique? Have you learned something to try out?
Angela: No. Or she might have said something but I don't use it.
Researcher: Why?
Angela: Because I like the way I do it.
Researcher: You like your way? Why?
Angela: Because I'm used to it. And...I usually don't like changes so I'll stay like that.
Researcher: Why don't you like changes?
Angela: Well, because like it's just like you get something that you like it and then somebody tries to make you do something else. So you want to say that's the way I am. Thanks.
Researcher: So you want to just ask somebody or use the dictionary?
Angela: Right.
Researcher: You don't want to learn anything new?
Angela: I like the way I'm doing it.

(2/22 p. 44 T32)

Clearly, learners looked at themselves and their learning from different perspectives. Their exposure to the same reading program elicited unique responses just as their perceived engagements with unfamiliar words were distinctive and individual.

Summary

Students in this study participated in word learning opportunities that occurred at different levels of engagement. They were recipients of information in whole class, teacher-directed instructional episodes where Debbie provided meanings for words she selected. They became more actively involved in their own learning when they participated in book discussion groups. In the role of vocabulary enricher, students had to make decisions about which words to highlight and about how to present word meanings to group members. Furthermore, as a researcher, I also created another level of engagement when I asked case study participants to engage in situated think aloud sessions.

Important patterns of independent word learning behaviors emerged from the situated think aloud sessions with the six case study participants. For example, learners
mobilized multiple strategies during a single encounter with an unknown word. Inaccurate word meanings did not obstruct their understanding of the story as long as meanings made sense within the overall context. Furthermore, learners used key words and phrases with content analysis, generated syntactically correct synonyms and phrases regardless of meaning, and sometimes transformed their word meaning constructions several times during one episode. As they maneuvered their way toward an acceptable meaning for targeted words, learners primarily focused their attention on the text and invariably made more text-bound schematic connections.

Learners' perceptions of their vocabulary acquisition during this school year varied. However, they were aware of their procedures and admitted that they activated strategies in ordered and systematic ways. While admitting that they learned these strategies in earlier grades, they still felt strongly that the strategies worked just as well with the more difficult and complex readings of seventh grade. Although vocabulary was not a major focus in Debbie's reading curriculum, learners were exposed to various levels of engagement with unfamiliar words as they participated classroom activities.
CHAPTER 5

REFLECTIONS

Research is situated within the realm of what is known, what has been revealed during the course of a study, and what still needs to be addressed. This study was placed within the parameters of existing research in vocabulary development. It captured some of the conditions under which middle school learners activated independent word learning strategies, and it brought forth new areas of inquiry.

In this chapter, I will begin with a general conceptual framework drawn from the study. It reflects a conceptualization of vocabulary teaching and learning from a broad perspective and serves as a summary of the main findings in this investigation. I will also indicate how this study substantiated current research on vocabulary development and instruction and revealed specific word learning behaviors of case study participants. These findings suggest implications for vocabulary teaching and learning and point to areas of further research.
Teaching and Learning Vocabulary From a Broad Perspective

The general conceptual framework shown in Figure 5.1 on page 318 represents a visual display of vocabulary teaching and learning in a middle school literature-based reading classroom. As depicted in this figure, the reading program was the focal point which informed teacher behaviors and student behaviors during instructional episodes concerning vocabulary development. Conversely, the beliefs, attitudes, and behaviors of participants shaped this literature-based program as students engaged in vocabulary learning opportunities and as the teacher made decisions about instruction.

The program reflected the teacher's beliefs about vocabulary learning and instruction within the parameters of reading in general. Because her primary focus was on critical thinking and problem solving, vocabulary was a secondary outcome of the program. Moreover, her main goal to help students think more critically guided her selection of required readings. Yet, her decision to highlight specific words in these stories arose from her beliefs about vocabulary learning and instruction. She maintained that new words are acquired through learning about a topic and that word knowledge fosters comprehension. Her actions shaped students' existing attitudes and awareness about the importance of vocabulary while exposing them to new words.
Figure 5.1: Conceptual Framework for Teaching and Learning Vocabulary
The display also illustrates the recursive nature of vocabulary learning as an important component in the learning outcomes of more sophisticated literate behaviors. It is informed by the learning process just as word knowledge itself facilitates learning. The learning process is reflected in learner behaviors which drive teacher responses to these actions. Teacher responses to learner behaviors, in turn, inform subsequent learner actions. The framework depicts the complex relationships among word knowledge, literate behaviors, and instructional settings where these facets shape and extend one another through the social interactions of the participants. In general, this display conceptualizes one way of knowing about vocabulary teaching and learning in a middle school literature-based reading program.

I placed the research questions which guided this study in strategic locations within this framework in order to clarify and situate them in relation to each other. The following responses to each question will serve as a brief summary of the major findings of this study.

1. What are the ways in which vocabulary is taught in a literature-based classroom at the middle school level?

The teacher's major focus for the school year was to help seventh graders develop stronger critical thinking skills and problem-solving strategies. As a result, she
viewed vocabulary development as a by-product of the total reading program. Yet, she conducted teacher-directed lessons with words she selected herself when students were about to read a new story. These lessons consisted of brief discussions about word meanings with the words written in a list on the board. Ultimately, students received limited exposure to unfamiliar words. That is, they encountered new words when the teacher initially talked about them and when they read the short story.

In addition to these teacher-directed instructional episodes, students took control of their own vocabulary learning during book discussion groups. When engaged in the role of vocabulary enricher, they selected words and presented them to their group. As group members, they generated their own discussions about these words. Thus, in this literature-based classroom, the teacher provided direct vocabulary instruction and also gave students opportunities to take control of their own vocabulary learning.

2. How does the teacher's definition and formulation of literature-based instruction impact vocabulary learning?

The teacher's perception of literature-based instruction for this grade level included some of the components outlined in Chapter I. For example, her program highlighted individualized reading time with self-pacing and self-selection of literature, small book discussion groups,
and whole-class interactions. Embedded within these activities were opportunities to discuss unfamiliar words that were teacher-selected and student-selected. Direct instruction of independent word learning strategies was not part of this program. However, the teacher provided ample time for students to engage in personal reading during Sustained Silent Reading which, in turn, gave students opportunities to encounter words incidentally.

3. What independent word learning strategies do students use in reading situations in school settings?

The major focus of this study was to examine the independent word learning strategies students employed as they engaged in self-sponsored reading. Because Sustained Silent Reading was an important aspect of this classroom program, it became the context in which I observed the word learning strategies of six case study participants. They mobilized several strategies during single encounters with unfamiliar words. They demonstrated their ability to explore content at the sentence and passage level, mobilize word level strategies such as word appearance and structural analysis, and draw upon outside sources. Although these strategies are well-documented in the literature about vocabulary acquisition, the ways in which learners activated these strategies were distinctively individual and varied. Furthermore, their reliance on syntax as a word defining
strategy was highly significant across all learners. Their knowledge of language played a vital role in the ways in which they made sense of unfamiliar words.

4. What are students' attitudes toward learning new words?

Learners' attitudes toward learning new words also varied. For the most part, the situated think aloud sessions heightened an interest in unfamiliar words and therefore resulted in several claims of perhaps forced interest on the part of several learners. However, other learners candidly admitted that learning new words was not a major goal to them. One learner even preferred to skip over them since that was her long-standing way of handling unfamiliar terms. Yet, another learner demonstrated a keen awareness and interest in words during our sessions as well as during instructional periods with the whole class. Thus, the students' attitudes about learning new words ranged on a continuum from apathy to real interest.

5. What do students' situated think alouds indicate about the conditions under which they employ specific word learning strategies?

How learners activated independent word learning strategies depended largely upon the nature of the word, the richness of the context, awareness of their own repertoire of word learning strategies, and ability to make schematic connections. Because of the complex nature of these
essential components, it is difficult to unveil specific conditions that traverse all learners and all word learning episodes. The conditions under which learners employed their strategies varied with each targeted word and emerged during transactions with words.

6. What differences in independent word learning strategies can be observed in individual levels of achievement?

Although all learners demonstrated the use of similar word learning strategies, they differed in how they mobilized these strategies. Proficient readers used these strategies in more sophisticated ways which enabled them to explore deeper and broader possibilities of word meanings. On several occasions, less proficient readers remained locked at a word level when they could not pronounce words. This behavior limited their range of possibilities for word meaning construction and also limited the amount of practice they had with these strategies. Less proficient readers also expressed disinterest in learning new words more than proficient readers.

7. What relationship exists between the teacher's instructional patterns and the students' independent use of word learning strategies in school settings?

This relationship emerged from students' self reports in what they learned about vocabulary during the year. Students felt that they learned new words from the program
and that the words were more difficult. They saw their repertoire of strategies as something acquired in previous years and did not equate it with the current reading program. Yet, they felt that these strategies worked well regardless of the difficulty level of the texts.

The impact of Debbie's instructional patterns was also evident in how learners interpreted their role as vocabulary enricher during book discussion groups. They emulated teacher behaviors as they highlighted and defined new words for their groups. Members in the groups became actively involved in word meaning construction when the vocabulary enricher assumed a facilitative stance similar to Debbie's behavior during the multicultural unit. When the vocabulary enricher simply provided word meanings, group members then became passive recipients of word knowledge. This behavior pattern paralleled Debbie's stance during the heroes unit where she selected and discussed words from the required readings.

Reflections About Existing Research

The data in this study substantiate current research on specific facets of vocabulary acquisition and development. Several findings parallel what is known about the nature of independent word learning strategies and the varying levels of word knowledge. The findings also support current
understanding about the relationship between vocabulary and reading comprehension and the different configurations of literature-based reading programs.

**Independent Word Learning Strategies**

Six learners in this study mobilized similar strategies as outlined by Ruddell and Ruddell (1995), Vacca et al. (1995), and Au et al. (1995). In general, they explored context, examined word structure, focused on pronunciation, and resorted to outside sources. However, the learners demonstrated these basic strategies in unique ways and in differing patterns. Some were also capable of activating these strategies in more sophisticated ways by drawing upon wide background knowledge and numerous experiences with reading. Nevertheless, their observed behaviors with unfamiliar words paralleled and supported current research in this literature-based classroom setting.

**Varying Levels of Word Knowledge**

What it means to know a word has been well documented in research. Experts agree that words are known in varying degrees and that a certain level of word knowledge may be sufficient depending upon the reading situation (Beck & McKeown, 1991; Dale, 1965; Kameenui et al. 1987; Nagy, 1985). On several occasions, learners in this study constructed generalized meanings for their targeted words.
These generalized meanings served them well in that they were able to keep the sense of the passage intact even though they did not articulate a full, decontextualized understanding of the word. At times, learners were satisfied with this one generalized level of word knowledge. At other times, some wanted to investigate deeper and more specific meanings. Nevertheless, they demonstrated varying levels of word knowledge as they sought the one level where they felt comfortable with their understanding of the targeted word.

Vocabulary and Reading Comprehension

The relationship between vocabulary and reading comprehension is indirect and complex. We know that vocabulary learning enhances reading comprehension when learners integrate new words with conceptual knowledge, encounter new words in multiple and varied settings, and process new words in meaningful ways by forming essential inferences (Anderson & Nagy, 1992; Baumann & Kameenui, 1991; Nagy, 1988). In this study, learners exhibited behaviors where they made connections between their existing knowledge and the conceptual information presented in the text. When they happened to encounter targeted words a second time, they were quick to confirm or disconfirm their previously constructed meanings for the words. Furthermore, they wrestled with their newly formed inferences in an effort to
derive word meanings that made sense in the story. Their main goal was to keep comprehension intact in their transactions with these targeted words.

**Configurations of Literature-Based Reading Programs**

Emphasis on a constructivist perspective toward language learning that embraces the use of quality literature has resulted in numerous reading program designs across school districts. The term "literature-based" has been defined and implemented in different ways by different teachers (Edelsky, 1992; Giddings, 1990). The teacher in this study perceived her program as literature-based, because she advocated student selection of trade books for Sustained Silent Reading and used novels in the multicultural unit. Her program resembled Burke and Short's description of "curriculum as activity" (cited in Heald-Taylor, 1996). Within this paradigm, the teacher made decisions about selections and activities, students read the same texts during a large portion of the time, discussions promoted higher-level thinking, and the teacher guided meaning construction. In other mastery units, the teacher pulled stories from anthologies for the whole class to read. She also presented a list of novels from which students could select a book. Thus, in this literature-based classroom, students read self-selected books during
Sustained Silent Reading, teacher-selected short stories, and self-selected books from a required list.

In sum, the reading program and observed student behaviors paralleled and supported current research in regard to vocabulary learning. Like many other middle school teachers, this teacher wrestled with formulating a program that bridged different paradigms of teaching and learning. Her behaviors vacillated between objectivist and constructivist stances as she conscientiously sought to provide an effective reading program for students. The learners mobilized independent word learning strategies that are well documented in research. Yet, the ways in which they did so were varied and unique to each situated think aloud session.

New Findings About the Independent Word Learning Strategies of Middle School Learners

As I studied the independent word learning behaviors of six focal learners, I captured glimpses of the conditions under which these students tried to make sense of unfamiliar words as they engaged in self-sponsored reading. First of all, they used multiple strategies during a single encounter with an unfamiliar word, including word level analysis, content analysis, and outside sources. In addition, they were not inhibited by inaccurate meanings as long as meanings made sense within the passage.
As they explored content, I noted that they had to make the decision to either stay at the sentence level or to venture into the passage. This depended in large part on available text clues as well as the confidence they had in themselves to broaden their search for information. All learners focused on key words or phrases at one time or another to guide them toward acceptable word meanings within the boundaries of the context. In general, their schematic connections remained text-bound, since they primarily used text information to formulate word meanings.

Furthermore, syntax was an important cueing system since they generated syntactically correct synonyms and phrases as they attempted to explain their word meaning constructions. They sometimes transformed their explanations several times during one episode with a word in their attempts to arrive at a plausible meaning. Content analysis at the passage level occurred more frequently before the targeted word than after it. Learners seldom explored both directions in their encounters with their targeted words.

Learners' perceptions of their word learning behaviors varied even though they were aware of the procedures they mobilized. They claimed to follow a set order as they activated strategies and believed that they learned these techniques in previous grades. Finally, learners clearly
stated that their repertoire of strategies served them well regardless of the difficulty level of the texts.

The findings indicate that these focal learners at the middle school level used their independent word learning strategies in different ways as they transacted with unfamiliar words in self-sponsored reading. They made decisions and drew inferences based on availability of text clues, the richness of their background knowledge, and their willingness to take risks in constructing possible meanings. In a sense, their actions with word meanings represented a microcosm of how they comprehended the text as a whole. The value of these findings lies not so much in these generalized statements as in the detailed descriptions of the learners as they endeavored to make sense of unfamiliar words.

More importantly, these findings indicate the diversity and flexibility evident in how these middle school learners mobilized what strategies they had to construct new word meanings. Furthermore, these findings hold strong implications for the need of instructional frameworks that can give support to those learners who have attained only a narrow band of strategies. Providing opportunities to read during class time is not enough. Learners who have developed rigid word learning behaviors need to experience instruction in think aloud sessions where an informed teacher can investigate the nature of existing strategies.
New Findings Concerning Vocabulary Teaching and Learning in a Literature-Based Reading Program

As participants in a literature-based reading program, students engaged in a variety of literacy tasks that affected vocabulary development in different ways. First, the findings of this study suggest that learners benefited from engagement in activities where individual word learning strategies were highlighted. Specifically, students practiced these strategies when they engaged in personal reading during Sustained Silent Reading. They also openly displayed their use of strategies as they participated in book discussion groups. The roles of vocabulary enricher as well as group members both served as ways for learners to use their word learning strategies to construct meaning and to contribute to group discussions. These social events enabled learners to actively engage in specific word learning and to observe the word learning behaviors of their peers. In addition, situated think aloud sessions provided an even more intense opportunity for learners to practice their strategies as well as to develop more metacognitive awareness of their own word learning behaviors.

Another aspect of vocabulary development in this literature-based reading program occurred in whole-class
events, where students listened while the teacher talked about targeted words related to a required reading. The outcome of these teacher-directed instructional episodes, where students were passive participants, was the attainment of specific word knowledge. Conversely, the outcome of book discussion groups and think alouds, where students took a more active stance, was the enhancement of independent word learning strategies. These events resulted in opportunities for personal reading where learners mobilized word learning strategies and constructed self-generated and shared meanings of unfamiliar words. In addition, they received exposure to the ideas and strategies of their peers, and, above all, a chance to develop a deeper awareness of individual word learning behaviors. Other related research (cited in Baumann & Kameenui, 1991; Beck et al., 1987) also indicates the value of active student engagement in word learning opportunities and the need to help learners develop a stronger awareness and appreciation for words. Thus, word learning episodes in this literature-based program represented a balance between acquisition of word knowledge and activation of independent word learning strategies.

The outcomes of this study suggest that learners developed their personal repertoire of word learning behaviors incrementally over time. They recalled past experiences where teachers in earlier grades emphasized the use of context and reliance on outside sources. Overall,
they did not relate or connect their acquisition or refinement of these literacy skills to their participation in the current literature-based program. However, they felt that their strategies for constructing meanings of unfamiliar words were sufficient in handling the more difficult readings of seventh grade.

Yet, those learners who demonstrated limited word learning behaviors were the ones in most need of support as they encountered new words. They needed to raise their level of word consciousness and to engage in strategic word learning opportunities. These passive, disengaged learners were cognizant of their inability to efficiently interact with unfamiliar words but did not have appropriate strategy knowledge to help themselves. They misinterpreted the role of pronunciation in reading as being a prerequisite strategy for constructing meanings for unfamiliar words. As a result, they had developed an overreliance on outside help as their primary word learning strategy. They skipped too many unfamiliar words and therefore missed important word learning moments. Within the parameters of a literature-based classroom, these learners can benefit from detailed strategy instruction and many opportunities to practice these behaviors in authentic reading events. A situated think aloud session can be used during conference time as an instructional tool to help these learners.
understand what they do and what they can do to help themselves become stronger independent word learners.

Although literature-based programs are defined and implemented in different ways by different teachers, the configuration of this program supported vocabulary teaching and learning as described in the existing body of research. It encompassed a variety of teaching and learning events where the teacher offered clarification about new words and learners practiced their existing repertoire of independent word learning strategies. Yet, the program offered only limited scaffolding for those learners with narrow word learning strategies.

Overall, the learners took their cues from the teacher. They emulated her word-defining techniques and adapted observed "teacher" stances when they initiated word learning opportunities in book discussion groups. As a result, learners' perceptions of teacher actions within this program were an important aspect of their vocabulary learning.

New Areas of Inquiry

The work in this study points to new areas of inquiry about word learning and about possible instructional frameworks. The following questions need to be addressed in future research on vocabulary development:
1. What impact would systematic, direct instruction of word learning strategies in think aloud sessions have on the natural word learning behaviors of maturing learners at the middle school level?

2. What procedural and conditional knowledge do learners employ as they transact with unfamiliar terms in content area reading situations?

3. How are the word learning strategies of diverse middle school learners influenced by sociocultural factors?

4. What differences exist between varying stances and the mobilization of independent word learning strategies?

5. How can literature-based reading programs at the middle school level incorporate think aloud sessions about word learning behaviors in self-sponsored reading events?

These questions suggest that we continue to explore vocabulary acquisition from a learner's perspective. Furthermore, we need longitudinal studies of word learning behaviors which follow learners through their school experiences prior to middle school. These studies can also extend into high school as we trace how independent word learning strategies may continue to change. Such investigations can provide fresh insights and perhaps a clearer understanding of how word learning behaviors emerge, develop, and mature across diverse learners. In addition, it may also unveil yet another layer of meaning regarding the elusive relationship between vocabulary learning and reading comprehension.
LIST OF REFERENCES


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APPENDIX A

BOOK SELECTIONS AND CONTEXTS OF WORDS
TARGETED BY FOCAL LEARNERS

Marian

Books Selections

The Crystal Cave by Mary Stewart
The October Country by Ray Bradbury
The Three Musketeers by Alexandre Dumas
Bearstone by Will Hobbs
A Thief of Time by Tony Hillerman

Contexts of Targeted Words

ALOOF
It was doubtful whether anyone would have recognized me as the runaway of five years ago and certainly the captain gave no sign, but I held myself aloof. (Stewart, M., The Crystal Cave, p. 187)

IDES OF APRIL
We had what they tell me was a fair wind, and we crept into the estuary and dropped anchor just before dawn, ten days before the Ides of April. (Stewart, M., The Crystal Cave, p.187)

SCREW
He's right, you know. This old screw won't get you far. (Stewart, M., The Crystal Cave, p. 189)
FALSETTO
"'Father'," Anvil said with falsetto mimicry. "'Father.' Say 'Old Man.' You think your old man is some stuff on a stick, don't you?" (Clayton, J. B., "The White Circle," p. 4)

TENEMENT
Are you positive that is the right tenement? (Bradbury, R., The October Country, p. 113)

VALISE
"There remains the valise," added Porthos. "Oh, don't let that disturb you," cried Madame Coquenard. "My husband has five or six valises; you shall choose the best. There is one in particular which he prefers in his journeys, large enough to hold all the world." (Dumas, A., The Three Musketeers, p. 312)

DIURNAL
Meantime, as we have said, despite the cries of his conscience and the wise counsels of Athos, D'Artagnan became hourly more in love with Milady. Thus he never failed to pay his diurnal court to her; and the self-satisfied Gascon was convinced that sooner or later she could not fail to respond. (Dumas, A., The Three Musketeers, p. 312)

PONIARD
Then the lady attempted to tear down the door case with the strength apparently above that of a woman. But finding she could not accomplish this, she in her fury stabbed at the door with her poniard, the point of which repeatedly glittered through the wood. Every blow was accompanied with terrible imprecations. (Dumas, A., The Three Musketeers, p. 347)

APHORISMS
"Remember, boy," Uncle Frank Sam Nakai would sometimes tell Chee, "when you're tired of walking up a long hill you think about how easy it's going to be walking down." Which was Nakai's Navajo way of saying things tend to even up. For Chee this proved, as his uncle's aphorisms often did, to be true. Chee's bad luck was followed by good luck. (Hillerman, T. A Thief of Time, p. 83)
"How has the professor's brilliant career developed?" Chee asked.
"Brilliantly. He's now chief legal counsel of Davidson-Bart, which I understand is what is called a multinational conglomerate. But mostly involved with the commercial credit end of export-import business. Makes money. Lives in Arlington." (Hillerman, T. A Thief of Time, p. 126)

Lynette

Books Selections

Where It Stops, Nobody Knows by Amy Ehrlich
Shiloh by Phyllis Reynolds Naylor
Halloween Night by R. L. Stine
Hit and Run by R. L. Stine
The Car by Gary Paulsen
Roll of Thunder, Hear My Cry by Mildred D. Taylor
My So-Called Life by Catherine Clark

Contexts of Targeted Words

AWNING
It was a little stand, a shack really, with the tables outside under an awning. (Ehrlich, A., Where It Stops, Nobody Knows, p. 132)

GLOSSY
For about two hours Joyce and I went in and out of shops. They were all so glossy they looked like stage sets from a movie. (Ehrlich, A., Where It Stops, Nobody Knows, p. 134)

IMPULSIVELY
I'd acted so impulsively, I hadn't really thought about what I was going to say beforehand. (Ehrlich, A., Where It Stops, Nobody Knows, p. 137)
GROVELING
Dog goes down on his stomach, groveling about in the grass. (Naylor, P. R., Shiloh, p. 13)

QUAVERY
"Your dog come over here twice because you been mistreatin' it," I say, and my voice don't sound near as strong as Dad's. Sort of quavery. I clear my throat and go on... (Naylor, P. R., Shiloh, p. 10)

GHASTLY
As Brenda screamed, he didn't react. His face remained set in its ghastly open-mouthed expression, as if he were mimicking her horror. (Stine, R. L., Halloween Night, p. 40)

MENACING
Brenda took a few steps toward him, her expression menacing. (Stine, R. L., Halloween Night, p. 41)

SCRAWLED
"See you on Halloween." She read the scrawled words again and again. (Stine, R. L., Halloween Night, p. 43)

TRIUMPH
Brenda caught a flash in Halley's eyes. It was there for less than a second, but Brenda caught it. A gleam of triumph. Of victory. (Stine, R. L., Halloween Night, p. 104)

MANGLED
Brenda thought of her mangled car. (Stine, R. L., Halloween Night, p.110)

RADIATE
The anger was always there, waiting, waiting in the pit of her stomach. Waiting to spread, to radiate through her entire body until she was choked by it, strangled by her own anger. (Stine, R. L., Halloween Night, p. 110)

SOULFUL
This time, Jordan was standing in the shadows, waiting for her. He gave her this soulful look, the way he always did right before he kissed her. (Clark, C., My So-Called Life, p. 152)
HAMLET
Another hamlet, another set of leaders to take out—sanction, neutralize, terminate with extreme prejudice.....Paddle up the small stream to the hamlet, find the two targets, end them, and canoe back to the patrol boat. (Paulsen, G. The Car, p. 4)

FIBROUS
"Ah, Big Ma, I ain't gonna fall," I scoffed, then climbed onto the next strong spike and reached for a fibrous puff at the top of a tall cotton stalk. (Taylor, M. Roll of Thunder, Hear My Cry, p. 32)

SINEWY
Mama was stooped over a low cotton branch. She stuffed one last puff into her bag and straightened. She was tawny-colored, thin and sinewy, with delicate features in a strong-jawed face, and though almost as tall as Big Ma, she seemed somewhat dwarfed beside her. (Taylor, M. Roll of Thunder, Hear My Cry, p. 33)

GAIT
As the men rounded a curve in the road, they became more distinct. There was in the easy fluid gait of the shorter man a familiarity that made me gasp. (Taylor, M. Roll of Thunder, Hear My Cry, p. 33)

ORNATE
The furniture, a mixture of Logan-crafted walnut and oak, included a walnut bed whose ornate headboard rose halfway up the wall toward the high ceiling, a grand chiffonier with a floor-length mirror, a large rolltop desk which had once been Grandpa's but now belonged to Mama, and the four oak chairs, two of them rockers, which Grandpa had made for Big Ma as a wedding present. (Taylor, M. Roll of Thunder, Hear My Cry, p. 36)

CHIFFONIER
The furniture, a mixture of Logan-crafted walnut and oak, included a walnut bed whose ornate headboard rose halfway up the wall toward the high ceiling, a grand chiffonier with a floor-length mirror, a large rolltop desk which had once been Grandpa's but now belonged to Mama, and the four oak chairs, two of them rockers, which Grandpa had made for Big Ma as a wedding present. (Taylor, M. Roll of Thunder, Hear My Cry, p. 36)

LYNCHED
"These folks gettin' so bad in here. Heard tell they lynched a boy a few days ago at Crosston." (Taylor, M. Roll of Thunder, Hear My Cry, p. 40)
RESILIENCY
At first the rain had merely splotched the dust, which seemed to be rejoicing in its own resiliency and laughing at the heavy drops thudding against it; but eventually the dust was forced to surrender to the mastery of the rain and it churned into a fine red mud that oozed between our toes and slopped against our ankles as we marched miserably to and from school. (Taylor, M. *Roll of Thunder, Hear My Cry*, p. 42)

DONNED
As soon as we were beyond Big Ma's eagle eyes, we threw off the cloaks and depended upon the overhanging limbs of the forest trees to keep us dry. Once at school, we *donned* the cloaks again and marched into our respective classrooms properly attired. (Taylor, M. *Roll of Thunder, Hear My Cry*, p. 43)

CODDLING
Big Ma was not one for *coddling* any of us, but now she turned from the stove, sat down on the bench and put her arm around Little Man. "Now, look here, baby, it ain't the end of the world. Lord, child, don't you know one day the sun'll shine again and you won't get muddy no more?" (Taylor, M. *Roll of Thunder, Hear My Cry*, p. 45)

FLIPPANTLY
We groaned. "Jus' ole Harlan," said T. J. *flippantly* as their expensive car rounded a curve and disappeared, then he and Clause started down the bank. (Taylor, M. *Roll of Thunder, Hear My Cry*, p. 47)

Books Selections
*Tarzan of the Apes at the Earth's Core* by Edgar Rice Burroughs

*Timothy of the Cay* by Theodore Taylor

*Maniac Magee* by Jerry Spinelli

*The Undersea Trilogy* by Frederick Pohl and Jack Williamson

*The Hardy Boys: Fear on Wheels* by Franklin W. Dixon

*Bearstone* by Will Hobbs

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Disension and Strife

But the rhinoceros, Tantor the elephant or Numa the lion might come and go through the forest without arousing more than the indifferent interest of the Lord of the Jungle, but when man came Tarzan investigated, for man alone of all creatures brings change and disension and strife wheresoever he first sets foot. (Burroughs, E. Tarzan of the Apes at the Earth's Core, p. 11)

Strife

Reared to manhood among the great apes without knowledge of the existence of any other creatures like himself, Tarzan had since learned to anticipate with concern each fresh invasion of his jungle by these two-footed harbingers of strife. (Burroughs, E. Tarzan of the Apes at the Earth's Core, p. 11)

Askari

Rounding a curve in the trail the leading askari came in sight of him and when they saw him they halted and commenced to jabber excitedly, for these were men recruited in another district—men who did not know Tarzan of the Apes by sight. (Burroughs, E. Tarzan of the Apes at the Earth's Core, p. 12)

Evincing

"Perhaps even that is possible," said Tarzan, who was now evincing increasing interest in Gridley's proposition. (Burroughs, E. Tarzan of the Apes at the Earth's Core, p. 16)

Crystobal

Rescued 12-year-old boy Phillip Enright and his cat from uncharted cay x survivors of SS Hato torpedoed April this year x boy and cat seem to be in good condition x proceeding Crystobal x. (Taylor, T. Timothy of the Cay, p. 1)
LANGOSTA:
"What did you eat all that time?" Dr. Heath asked, adding, "Lie back."
"Oh, fish and langosta, coconuts, sea-grape leaves..."
(Taylor, T. Timothy of the Cay, p. 3)

EMANCIPATED
He knew that slaves--like Tante Hannah, who'd been emancipated forty-one years before, in the Virgin Islands--had had to do that. Show their gums. Now he had to do it, too. (Taylor, T. Timothy of the Cay, p. 12)

MARTINET-LIKE
"Proceed, Cadet Eden, he ordered, martinet-like. Then, for a moment, the ramrod formality dropped from his face and he smiled. (Pohl, F., and Williamson, J. The Undersea Trilogy, p. 8)

RAMROD
"Proceed, Cadet Eden, he ordered, martinet-like. Then, for a moment, the ramrod formality dropped from his face and he smiled. (Pohl, F. & Williamson, J. The Undersea Trilogy, p. 8)

QUADRANGLE
To help you achieve this condition, I am permitting you to walk off fifteen tours around the quadrangle. (Pohl, F. & Williamson, J. The Undersea Trilogy, p. 11)

ESCALATION
The trendline forecasts look pretty sour. Now they show nuclear escalation probabilities peaking pretty fast. We've got a date for it. (Pohl, F. & Thomas, T. Man Plus, p. 48)

PHAGING A PATHOGEN
"The offending codes no longer exist. Our brother Wyatt found, absorbed, and erased them--like a white blood cell phaging a pathogen. (Pohl, F., & Thomas, T. Mars Plus, p. 332)

ANNIHILATED AND ARMADAS
The CIGAs' avowed goal was dismantling--from within--the mighty Imperial Fleet that had nearly annihilated League Admiral Kabul Anak's spaceborne armadas. All, of course, in the name of "Peace."
(Baldwin, B. The Mercenaries, p. 9)
UNDETERRED AND INDEFATIGABLE
Brim had seen Onrad's courageous move raise a predictable hue and cry from CIGAs all over the Empire, but the Prince remained undeterred, indefatigable in his belief that the new ships constituted the absolute minimum counterforce necessary to insure survival of civilization. (Baldwin, B. The Mercenaries, p. 9)

FRIGID
Closed for nearly ten years now by CIGA-contrived "economic" concerns, the great base--covering much of the planet's land mass--would already be yielding to the corrosive effects of Gimmas's brutally frigid climate. (Baldwin, B. The Mercenaries, p. 10)

Books Selections
Jurassic Park by Michael Crichton
Lassiter on the Texas Trail by Loren Zane Grey
Sphere by Michael Crichton
Children of the River by Linda Crew

Contexts of Targeted Words

SOPHISTICATION
Meanwhile, Disney had started to create amusement park rides of great technological sophistication, and they employed a lot of aerospace people. (Crichton, M. Jurassic Park, p. 138)

LEBEAUMANIERE
Chef Alain Richard hails from the world-famous LeBeaumanieres in France. Make your reservations by dialing four from your hotel rooms. (Crichton, M., Jurassic Park, p. 143)

REMUDA
Watt took his time rubbing down his horse and turning it loose into the remuda. (Grey, Z. Lassiter on the Texas Trail, p. 45)
FLATLY

"Next time, you tell me where you're headed," Morris said flatly. (Grey, Z. Lassiter on the Texas Trail, p. 47)

INHERENT INSTABILITY:
The whole system could suddenly collapse. And that was what he said about Jurassic Park. That it had inherent instability. (Crichton, M. Jurassic Park, p. 243)

IMPEDE

He didn't want to impede circulation through the carotid artery. (Crichton, M. Jurassic Park, p. 246)

ASTROPHYSICIST

"Give me your opinion of this," Barnes said. He handed Norman a sheet of paper:

ANOMALY INVESTIGATION TEAM
Civilian Staff Members.
1. Theodore Fielding, astrophysicist/planetary geologist
2. Elizabeth Halpern, zoologist/biochemist

(Crichton, M. Sphere, p. 21)

TUTANKHAMEN

"Absolutely not," Barnes said. "We can't risk it."
"You must think of this," Ted said, "as an archaeological site. Greater than Chichen Itza, greater than Troy, greater than Tutankhamen's tomb. Unquestionably the most important archaeological site in the history of mankind..." (Crichton, M. Sphere, p. 63)

PRISTINE

"This first clue," Harry said, "came from the condition of the craft itself. It shows no damage whatever. Its condition is pristine. (Crichton, M. Sphere, p. 66)

PEDESTAL

"Anyway," he went on, "I don't need people putting me on a pedestal. It's more just this pressure of having to be what everybody wants me to be. My parents and all." (Crew, L. Children of the River, p. 88)

ASHEN

This humble promise seemed to reduce the last embers of Soka's anger to ashen weariness. (Crew, L. Children of the River, p. 117)
Through the doorway she could see Soka huddled with Grandmother on the living room mats, the two of them wrapped in afghans to ward off the growing winter chill. As she had for two days now, Soka twisted in her hands a thin, ragged krama, grieving for her lost friend Theary. (Crew, L. *Children of the River*, p. 147)

Angela

**Books Selections**

*Summer of Fear* by Lois Duncan

*Don't Die My Love* by Lurline McDaniel

*The Boyfriend* by R. L. Stine

*Bearstone* by Will Hobbs

**Contexts of Targeted Words**

**BUREAU**

But people just don't turn on lights in rooms where someone else is sleeping, or pretending to sleep, and so I undressed in the dark, groping through two different bureau drawers for my pajamas because I couldn't remember how I had arranged things, and crawled into the other twin bed. (Duncan, L. *Summer of Fear*, p. 52)

**QUALMS**

I had a few qualms at first about how Caroline and Julia would get along together. (Duncan, L. *Summer of Fear*, p. 55)

**SUSCEPTIBLE**

I had an aunt who used to get them whenever she ate strawberries. The thing is that people who are susceptible to hives usually start getting them in babyhood. (Duncan, L. *Summer of Fear*, p. 79)
SURGES
The dream is too long. It slithers and slips and gurgles deeply into midnight pools in which I see my own face looking back. It pounds with a scream that crashes into earth-torn caverns and is drowned; it surges with the babble of voices that splash against my ears, it whispers over words I can't understand. (Nixon, J. L. The Other Side of Dark, p. 1)

KHAKIS
For a second our eyes meet, but a fat character in khakis, puffing, muttering, and pushing between us, follows his protruding stomach through the crowd. (Nixon, J. L. The Other Side of Dark, p. 67)

HULKS
For several hours they rode up Snowslide Canyon, crossing many of the wide, grassy paths among the sun-whitened hulks of spruces ripped from the edges of the slides high above. (Hobbs, W. Bearstone, p. 90)

Heath

Books Selections
My Teacher Glows in the Dark by Bruce Coville
Halloween Night II by R. L. Stine
The Lord of the Flies by William Golding
Bearstone by Will Hobbs
Indiana Jones and the White Witch by Martin Caidin

Contexts of Targeted Words
HOO-LAN
The skin beneath the mask was blue. As he slowly pulled it upward, he revealed a huge white mustache, a comic nose, enormous eyes. It was Hoo-lan! (Coville, B. My Teacher Glows in the Dark, p. 1)
DRAWLED
But that was before I got a good look at the inside of his head— which was less frightening and more sad than I ever would have guessed. "Well, since you asked..." I drawled. (Coville, B. My Teacher Glows in the Dark, p. 2)

COPE
Then he'd probably be just as glad I was gone; one less nuisance for him to cope with. (Coville, B. My Teacher Glows in the Dark, p. 6)

TAPERED
The base tapered down in layers, a little like a kid's toy top. (Coville, B. My Teacher Glows in the Dark, p. 9)

QUIVERING
The narrow entryway was dark except for the flickering orange light from a candle on a low table. In the quivering light, Brenda could see sheets of cobwebs over the doorway. (Stine, R. L. Halloween Night II, p. 149)

SOMBER
Somber organ music floated from the living room. Funeral music, Brenda thought. Low and mournful. (Stine, R. L. Halloween Night II, p. 149)

LIMPLY
A hand hung limply from inside the coffin on the left. (Stine, R. L. Halloween Night II, p. 160)

COOLLY
Angela nodded coolly, her face expressionless. "Yes. And then I ran upstairs and tied myself up in the closet, but I didn't count on the camcorder being on."
(Stine, R. L. Halloween Night II, p. 169)

SOLEMNLY
"Aren't there any grownups at all?"
"I don't think so."
The fair boy said this solemnly; but then the delight of a realized ambition overcame him. In the middle of the scar he stood on his head and grinned at the reversed fat boy. (Golding, W. The Lord of the Flies, p. 8)
MOTIF
Here the beach was interrupted abruptly by the square motif of the landscape; a great platform of pink granite thrust up uncompromisingly through forest and terrace and sand and lagoon to make a raised jetty four feet high. (Golding, W. The Lord of the Flies, p. 11)

WHIZZOH
A school of tiny, glittering fish flicked hither and thither. Ralph spoke to himself, sounding the bass string of delight.
"Whizzoh!" (Golding, W. The Lord of the Flies, p. 12)

OCTAVE
His ordinary voice sounded like a whisper after the harsh note of the conch. He laid the conch against his lips, took a deep breath and blew once more. The note boomed again, and then at his firmer pressure, the note, fluking up an octave, became a strident blare more penetrating than before. (Golding, W. The Lord of the Flies, p. 16)

FERVOR
"We're going to forget the beast. That's right! Yes! Forget the beast!"
If Jack was astonished by their fervor, he did not show it. (Golding, W. The Lord of the Flies, p. 121)

FURTIVE
Maurice and Robert skewered the carcass, lifted the dead weight, and stood ready. In the silence, and standing over the dry blood, they looked suddenly furtive.
Jack spoke loudly. "This head is for the beast. It's a gift."
The silence accepted the gift and awed them. The head remained there, dim-eyed, grinning faintly, blood blackening between the teeth. (Golding, W. The Lord of the Flies, p. 124)

CYNICISM
Simon stayed where he was, a small brown image, concealed by the leaves. Even if he shut his eyes the sow's head still remained like an after-image. The half-shut eyes were dim with the infinite cynicism of adult life. They assured Simon that everything was a bad business. (Golding, W. The Lord of the Flies, p. 125)

UTE
"His mother is dead—died when he was born. She was Ute. (Hobbs, W. Bearstone, p. 8)
JUNIPERS
"We should finish the fence. So you'll have it before hunting season."
"I'd sure like to see it finished, too, Cloyd, but there's a lot of work left in it, fallin' junipers for posts and whatnot." (Hobbs, W. Bearstone, p. 38)

WINDROWS
Everything Walter did had to be in neat lines, like his windrows and his fences. (Hobbs, W. Bearstone, p. 53)

ARROYOS
The animals went where there was feed, and there were no fences at all until some white men chained the trees out by their roots, dragged them into the arroyos, and fenced the northern end of the mesa for beans. (Hobbs, W. Bearstone, p. 55)

FISSURE
"A fissure vein of ore is what it is. Ore's the rock the gold is in. You see, gold is usually mixed with other minerals in veins that run through the mountain. If you find a good fissure vein, it'll never give out on you like a fault will." (Hobbs, W. Bearstone, p. 90)

BILLOWS
Three thousand feet above the rugged gullies and thick woodlands of the New Forest of southern England, wind blowing her bright red hair in a swirling billow, Gale Parker yanked back the throttle of the little training plane. (Caidin, M. Indiana Jones and the White Witch, p. 1)

CENTRIFUGAL
His feet were leaden as Gale hauled back into a tight inside loop, the airplane rushing upward, continuing over. Through the upward climb, the centrifugal force, what these lunatic pilots called g-forces, mashed him down in his seat, hung his lower lip low, and sagged bags under his eyes. (Caidin, M. Indiana Jones and the White Circle, p. 3)
APPENDIX B

ASSESSMENT GUIDE FOR THE VOCABULARY LOAD OF REQUIRED READING SELECTIONS AND SELF-SELECTED TRADE BOOKS

Rich Vocabulary Load

► Conceptually challenging load
► Wide assortment of general high frequency words of mature language users
► Variety in word phrases and figurative language

Average Vocabulary Load

► Adequate conceptual load
► Sporadic use of general high frequency words of mature language users
► Some variety in word phrases and figurative language

Minimal Vocabulary Load

► Undemanding conceptual load
► Limited number of general high frequency words of mature language users
► Minimal variety in word phrases and figurative language
► Few unknown words
Letters of Consent

September 18, 1995

To the parents and/or guardian of

As part of my doctoral studies at the Ohio State University, I will be conducting research concerning vocabulary development in literature-based reading programs at the middle school level. Because vocabulary knowledge is an important aspect of literacy behavior, it is important to examine how it is addressed and implemented in current reading programs for older children.

The North School District has given permission for me to conduct the research at Stanton Middle School. Your child's teacher, Debbie Moore, has agreed to be a participant in this study, and I would like your child to be a participant also. I will be conducting observations and interviews along with audiotaping of special sessions. In addition, I will be examining students' writing samples and pertinent test scores. The students will be asked to complete a questionnaire about word learning strategies and about their attitudes toward learning new words. Students who are interviewed will remain anonymous in the reporting of the study. All information will be kept confidential and will not affect your child's performance or assessment in the class.

I would appreciate having your child participate in this study. If for some reason, you do not want your child to do so, please sign and return the form below. If you have any questions, please call me at 210-899-4954. I will be happy to talk to you. Thank you.

Sincerely,

Janis Harmon

---------------------------------------------------------------------
IF YOU AGREE TO LET YOUR CHILD PARTICIPATE IN THE STUDY,
IT IS NOT NECESSARY TO FILL OUT THIS FORM.

I understand the purpose of this study and I do not want my child to participate.

Child's Name: _______________________________________________________________________

Parent's or Guardian's Signature ___________________________ Date ____________
October 10, 1995

Parents of ____________________________

As part of the vocabulary research I am conducting with Mrs. Moore's reading classes, I need to focus on the work of several students. With your permission, I would like __________________ to be a case study in this project. It will not interfere with classwork nor will it affect Mrs. Moore's assessment of student performance. All data will remain confidential and no names will be mentioned in the final report. I will be interviewing your child periodically during non-academic time and will examine what books are being read and what writing is done in the class. I will be paying close attention to how your child is learning new words.

Please sign below if you are willing to allow your child to participate as a case study in this research. If you have any questions, call me at (210) 899-4954. Thank you.

Sincerely,

Janis Harmon

__________________________ has my permission to be a case study participant in the vocabulary research being conducted in Mrs. Moore's reading class.

Signature of Parent or Guardian ___________________________ Date ____________
Student Questionnaire

Attitudes and Perceptions about Vocabulary Acquisition

Name____________________________________
Age:___________ Grade:___________

Circle how you feel about each statement or question. Circle one only.

1. What kind of reader do you think you are?
   very good reader
good reader
average reader
poor reader
very poor reader

2. Learning new words is important to me.
   strongly agree  agree  not sure  disagree  strongly disagrees

3. I enjoy learning new words.
   strongly agree  agree  not sure  disagree  strongly disagrees

4. Looking up definitions in a dictionary helps me learn new words.
   strongly agree  agree  not sure  disagree  strongly disagrees

5. I learn many words on my own.
   strongly agree  agree  not sure  disagree  strongly disagrees

6. It helps me when the teacher discusses new words before I read them.
   strongly agree  agree  not sure  disagree  strongly disagrees

7. Words I don't understand make reading hard for me.
   strongly agree  agree  not sure  disagree  strongly disagrees
8. I can read and understand words that I never use when I write.
   strongly agree  agree  not sure  disagree  strongly disagree

9. I can read and understand words that I never use when I speak.
   strongly agree  agree  not sure  disagree  strongly disagree

10. Learning new words helps me to become a better reader.
    strongly agree  agree  not sure  disagree  strongly disagree

11. I know how I learn new words.
    strongly agree  agree  not sure  disagree  strongly disagree

12. Long words are harder to understand than short words.
    strongly agree  agree  not sure  disagree  strongly disagree

13. It is easier to know what a word means when I read it in a paragraph or story instead of in a list.
    strongly agree  agree  not sure  disagree  strongly disagree

14. The more words you know, the easier it is to understand what you are reading.
    strongly agree  agree  not sure  disagree  strongly disagree

15. Once you can pronounce a word, then you will know what it means.
    strongly agree  agree  not sure  disagree  strongly disagree
Guiding Questions for Student Interviews

1. How does a person learn new words?

2. Is it important to learn words? Why or why not?

3. Where do you learn new words?

4. Do unknown words bother you when you are reading?

5. What do you do when you come across an unknown word while you are reading?

6. How do your teachers help you learn new words?

7. What are some things that you do that help you with new words?

8. How do you know when you know a word?

9. Why is it that you can read and listen to harder words than you can speak or use them in your writing?

10. Do you find learning new words interesting? Why or why not?
Student Attitude Survey

1. What makes a person a good reader?

2. Are you or are you not a good reader? Why do you think so?

3. Do you enjoy reading? Why or why not?

4. What kind of reading do you enjoy doing? Why?

5. What was the last thing you read outside of school? When?

6. Do you like to talk about what you read? Why or why not?

7. Do you have any hobbies? What are they?

8. Do you like being read to? (Someone reading out loud to you) Why or why not?

9. Do you read comic books, magazines, newspapers? Which ones? How often?

10. I'd rather read than _________________________.
    I think my grades are _________________________.
    When I grow up I want to _________________________.
    When I finish high school I will _________________________.
    I (do or do not) like to read out loud because
    ___________________________________________________________________
    I'd read more if _________________________.
    I'd rather read than _________________________.
    I (like or do not like) to write because _______________________________________.

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Direct Instructional Episodes of Vocabulary
(from August until the end of February)

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<td>&quot;Charles&quot; seminar story (8/25 p. 1 F1)</td>
<td>Students select their own words; teacher explains strategy choices for identifying unknown words: 1) read first, then write or 2) write as you read</td>
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<td>&quot;Yudhisthir and His Brothers&quot; hero unit (9/6 pp. 1-6 T2)</td>
<td>12 teacher-selected words and definitions written on board; teacher defines words; students copy one definition only for <em>caste system</em>; students read the remaining definitions orally</td>
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<td>&quot;Scarface&quot; hero unit (9/18 pp. 6-11 T4)</td>
<td>5 teacher-selected words written on board with no definitions; teacher explains the meanings; students listen</td>
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<td>&quot;Heroes of Today&quot; hero unit (9/25 pp. 5-9 T6)</td>
<td>13 teacher-selected words written on board with no definitions; teacher explains; the meanings; students listen</td>
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<td>&quot;Empire Strikes Back&quot; hero unit (9/28 pp. 1-6 T8)</td>
<td>8 teacher-selected words for first period class; 6 additional words for second period class; words and definitions on transparency; students do not copy words and meanings; teacher explains and questions; students listen and respond</td>
</tr>
<tr>
<td>&quot;Harriet Tubman&quot; hero unit (10/5 pp. 1-10 T10)</td>
<td>15 teacher-selected words and definitions written on board; teacher explains; no questions asked; students listen</td>
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"The White Circle"  
seminar story  
(10/25 pp. 16-19 T15)  
15 teacher-selected words and no definitions written on board; for second period class only; teacher explains and questions; students listen and respond; both classes find unfamiliar words for extra points on seminar grade.

"The Pledge of Allegiance"  
Socratic practice  
(10/31 pp. 4-16 T18)  
(11/2 pp. 1-30 T19)  
Used for Socratic practice; teacher-directed discussion of specific words and phrases; meaning of the pledge analyzed on a word-by-word level; student references to dictionary.

"At Her Father's and Her Mother's Place"  
seminar story  
(11/28 pp. 1-8 T25)  
(12/13 pp. 1-3 T26)  
13 teacher-selected words and no definitions written on the board; students write meanings for familiar words; teacher then questions and explains; students listen and respond; same procedure for both classes; during seminar the word "communism" and its dictionary definition analyzed.

"The Idea of Ancestry"  
Socratic practice  
(12/7 pp. 1-8 T25)  
Poem used for Socratic practice; students list unknown words after initial reading; students work in groups to compare word lists; groups use the dictionary to define unfamiliar words common to group members; teacher-directed discussion after group work.

"The Wise Old Woman"  
example of folktale  
(1/8 pp. 18-19 T27)  
2 teacher-selected words; no definitions written on the board; teacher explains and questions; for Class #2 only; students listen and respond.
Multicultural Mastery
Children of the River
Roll of Thunder, Hear My Cry
Bearstone
Jemmy
Dragonwings
(1/25 pp. 23-33 T29)

Novel groups; one group role is vocabulary enricher; students take turns with each role; students use peers as word meaning sources; students use the dictionary; students become the vocabulary teacher.
## Classification System

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