

Content-Area Vocabulary Study Strategies

Appendix A

SENIOR

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Overview

Vocabulary is unique to each content area. Each content area's vocabulary and, in particular, its technical vocabulary label its fundamental concepts. Since words are labels for concepts, it is important that students know the meanings of the words that identify these concepts. They need content-specific vocabulary to understand what others are speaking about the topics of the subject and to understand what they are reading about the subject. In addition, they also need to be able to use content-area vocabulary to write and talk about concepts themselves. Thus, vocabulary and vocabulary study are most important in the study of each and every content area.

Teachers may wish to preview the difficult vocabulary inherent in a cluster or learning experience to categorize it in terms of student success:

Must: These are the words that the teacher decides the student must recognize and be able to use if he or she is to have a basic understanding of the topic. This is the focus for classroom instruction and learning.

Should: These are the words the teacher thinks are important but not essential. Therefore, a student should know them and be able to use them if he or she is to do well.

Could: These are the words students should know and be able to use, but are not necessary to a basic understanding of the topic. The teacher will explain these in passing when necessary.

Content-area vocabulary needs to be taught well enough to eliminate barriers to student understanding of the subject. While wide reading helps students to develop vocabulary, it is not sufficient in itself: "direct instruction in words specific to academic content can have a profound effect on students' abilities to learn that content" (Marzano, 2003). However, practices such as having students look up, define, and memorize definitions are of limited value because these routines frequently divorce the study of vocabulary from the understanding of the subject. Study of vocabulary and the subject itself are integral to each other.

A variety of vocabulary strategies may be used to assist students in learning content-specific vocabulary. Some of these are described briefly.

Activating Phase

The particular vocabulary students will need to understand and use may be covered at the beginning of a cluster or learning experience as students activate their prior knowledge and experience.

1. Knowledge Rating Charts

To determine students' prior knowledge of pertinent content vocabulary and to introduce them to that vocabulary, have each student complete a Vocabulary Knowledge Rating Sheet:

1. Divide a page into six or more columns.
2. In column 1, include terms that are essential to understanding the topic or unit.
3. In the other columns, indicate levels of student knowledge and use of the topic.
4. Have students complete the Vocabulary Knowledge Rating Chart individually.
5. In small groups and/or whole class, have students share their knowledge rating of vocabulary terms.
6. Pre-teach terms essential to student understanding of the topic or unit.

Vocabulary Knowledge Rating Chart (Example)

Subject: _____ Topic/Unit: _____					
Date: _____					
How much do you know about these words?					
Words	<i>I don't know this word.</i>	<i>I know it when I hear it.</i>	<i>I know it when I read it.</i>	<i>I can use it when talking.</i>	<i>I can use it in writing.</i>

2. Concept-Vocabulary Relationship Maps

In content-area learning, it is important for students to understand concepts (and their vocabulary names) not in isolation but in relation to other related concepts. Each content area involves the organization of these concepts in hierarchies according to class, example, and

attributes. In these conceptual networks, the class relationship is organized as superordinate, coordinate, and subordinate.

You may wish to help students understand these concept relationships and the pertinent vocabulary by providing them with Concept-Vocabulary Relationship Maps at the beginning of a cluster or learning experience.

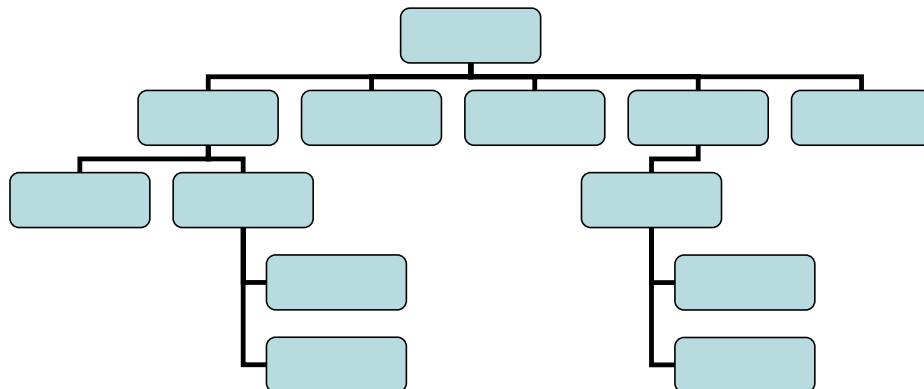
1. Review and analyze the vocabulary that students will need to know and be able to use for a particular cluster or learning experience.
2. Arrange the vocabulary terms in a graphic scheme that shows their interrelationship (superordinate, coordinate, subordinate).
3. Evaluate the graphic organizer to make sure that it includes all the essential vocabulary (concepts) and that it accurately represents their interrelationship.
4. Introduce students to the cluster or learning experience by showing them the graphic organizer or scheme and explaining why you arranged it as you did. You may wish to post the graphic organizer in the classroom to connect particular parts of instruction back to the graphic organizer or terms, or to provide students with a copy for personal reference.

Variation:

Rather than provide students with ready-made graphic organizers of concepts/terms, have students construct their own. To make connections effectively, students require some pre-knowledge and understanding of the concepts. This may be a valuable exercise in the Applying phase of learning. It may also provide you with the means to assess student understanding of the concepts (vocabulary terms) and their relationships.

1. Provide students with a list of the concept vocabulary terms.
2. Have students work in pairs or small groups to work together to develop a special arrangement of the terms that demonstrate major concept relationships (superordinate, coordinate, and subordinate).

Concept-Vocabulary Relationship Map (Example)



References: Barron, 1969; Vacca and Vacca, 2004

3. Word Exploration

To begin their exploration of a cluster and a learning experience, students need to access what they already know. You may want students to focus on vocabulary terms to determine what they know about the topic and their understanding of the vocabulary essential to that topic.

Students use a writing-to-learn strategy.

1. Students are asked to write quickly (for no more than five minutes) and spontaneously about a term or key terms. This is also known as free-writing. Students need not be concerned about mechanics (spelling, grammar, punctuation). The purpose of the free-write is to put down on paper everything the student knows about the topic, target concept, or vocabulary term.
2. Students share their word explorations with the class, either by reading what they have written or by talking through their explanations and noting similarities and differences among student explanations.
3. Relate students' initial associations to the concept/vocabulary term.

4. Brainstorming

Brainstorming allows students to access what they know about a key concept (and its vocabulary term[s]). The brainstorm lists help the students and the teacher to assess what students individually and collectively know about key concepts and vocabulary terms.

1. Identify a key concept (vocabulary term) that reflects an essential concept to be studied in the cluster or learning experience.
2. Students work in small groups to generate a list or words related to the concept in a predetermined time frame.

5. List-Group-Label and Word Sorts

This activity may be used as an extension of brainstorming.

1. Once lists of pertinent vocabulary terms have been generated by the class, students sort the terms in logical word groups and label each group. Note that you may determine the categories or leave that to the students.

2. Students are asked to use their list of words and their grouping of these words to make predictions about what they will be studying and/or how the terms and the grouping relate to the title of an article they are to read, a video they are to watch, or the title of the cluster or learning experience. Students are asked to explain reasons.

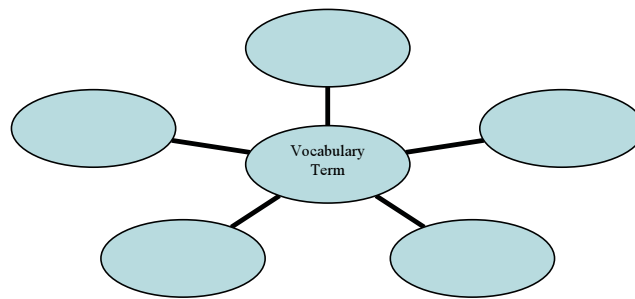
For a sample Sort and Predict frame, see *Success for All Learners*, pp. 6.33-6.35, 6.100.

6. Semantic Word Maps

Semantic word maps graphically display the relationship among words. Semantic word mapping may be combined with brainstorming and small collaborative group work.

1. Choose a key concept to be explored, one that is essential to student understanding of a cluster or a learning experience.
2. Students suggest related terms and phrases. Record them on a chalkboard, overhead transparency, or chart paper.

Semantic Word Map (Example)



Acquiring Phase

As students explore the content of a cluster and learning experience, they need to acquire and refine their understanding of the vocabulary terms needed to comprehend the new content they read, hear, and view. In addition, they will need to have sufficient understanding of content-specific vocabulary to talk and write about cluster and learning experience information and ideas.

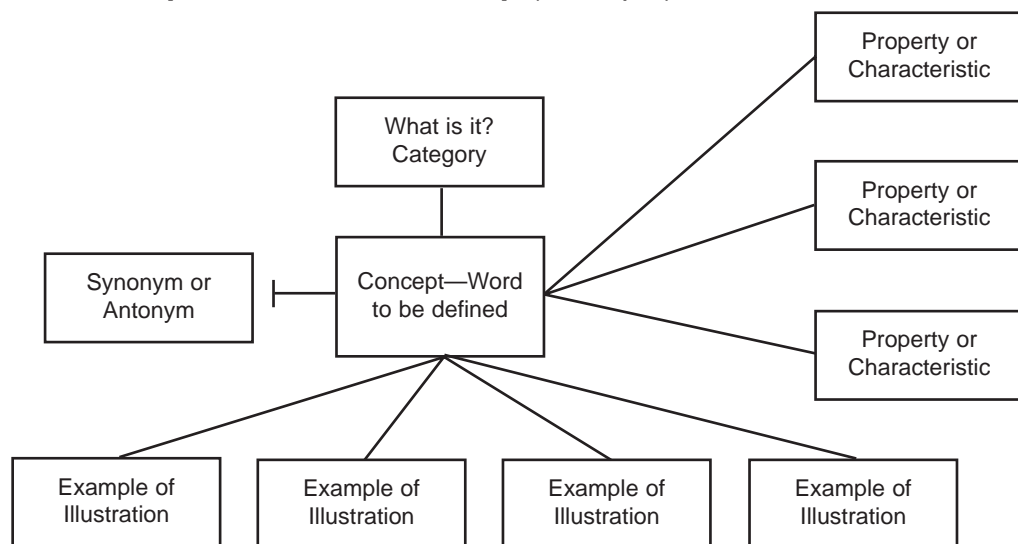
1. Concept-Word Definition Mapping

Concept-Word Definition Mapping is a strategy for students to learn key concepts. Maps or graphics help students to understand the essential attributes, qualities, or characteristics of a concept (word).

1. Model the development of a Concept-Word Definition Map using a term from a previously studied cluster or learning experience or another term that is familiar to students.

2. Display a blank Concept-Word Definition Map on chart paper, the chalkboard, or overhead transparency, and complete the parts with students.
3. Ask students questions to complete the map:
 - What is the vocabulary term (to be defined)? To what broader category or classification of things does it belong?
 - What is it like? What are its essential characteristics? What qualities does it possess that make it different from other things in the same category?
 - What are some examples of it?
 - What is a synonym or antonym?
4. Have students work in pairs or triads to develop a concept-word definition for another vocabulary term. You may wish to scaffold their work by providing them with words and phrases related to the targeted vocabulary term and have them discuss and place them on a Concept-Word Definition Map template.
5. After students complete their map, they write a complete definition of the concept using information from their Concept-Word Definition Map.
6. As their study of the cluster and learning experience continues, students may refine and expand their maps.

2. Concept-Word Definition Map (Example)



Concept-Word Definition Map: From Buehl, D. "Concept/Definition Mapping." *Classroom Strategies for Interactive Learning* (2nd Edition). Newark, NJ: International Reading Association, 2001. Reprinted with permission.

References: Schwartz, 1988; Schwartz and Raphael, 1985

3. Word Family Trees

The more students know about a concept/word, the more they will be able to comprehend and use the term. Word Family Trees involve students in the study of a concept/word by connecting it to its origins, to related words that share a common root, to words that serve a similar function, and to situations in which the word is likely to be used.

1. Model the strategy using a blank template and completing it with students using a concept/word previously studied or familiar to students.
2. Once students are familiar with the process, assign target words to pairs of students to research.
3. Students share their findings with classmates.

Word Family Tree (Example)

Ancestor (root word) _____	Pronunciation Key:	Words that are similar:
which means		
Concept/Word		
Definition:		
A sentence where you found this word:		
Who would say it? Pick three kinds of people who might say this word and write a sentence showing how they might use it.		
Example-Geographer	Example-Politician	Example-Business Person

Word Family Tree: From Buehl, D. "Word Family Tree." *Classroom Strategies for Interactive Learning* (2nd Edition). Newark, DL: International Reading Association, 2001. Reprinted with permission.

4. Vocabulary Self-Collection Strategy (VSS)

Vocabulary self-collection strategy promotes long-term acquisition of language in an academic discipline (Haggard, 1986). It also provides you with the opportunity to assess students' knowledge and understanding of concepts/words that are key to the cluster and learning experience focus.

1. Divide the class into pairs or small groups. Students nominate words in a text or topic (such as those identified in a cluster or learning experience) that require emphasis.
2. Each group presents its nominated word and indicates where they found it. They describe the context in which the word is used, what they think the word means in the context, and their reasons for selecting it.

Variation:

Students may keep a personal vocabulary self-collection list of words they encounter in reading and listening. Students submit their word lists or individual terms to the teacher in an Exit Slip. Use these nominated words for further explicit teaching to the whole class, small groups, or individual students.

5. Three-Point Approach

This strategy provides students with a visual as well as a written method of clarifying and reviewing concepts/vocabulary terms.

1. Identify key concepts/words from a cluster or learning experience that are essential for students to recognize and use in communicating the content.
2. Students write definitions, draw a diagram or visual representation, and provide a synonym or example.

For an example of a Three-Point Approach frame, see *Success for All Learners*, pp. 6.36, 6.101.

6. Word Wall

Students contribute to the development of a Word Wall that contains key words related to a current topic of study. Students record words and definitions they contributed in personal dictionaries.

7. Word Cycle

Students complete a Word Cycle think sheet related to new vocabulary. Given vocabulary terms, students arrange the words and indicate the relationships among them. In a Listen-Think-Pair-Share, students identify the relationship between all adjoining words and justify their choices.

For more information on Word Cycle and Listen-Think-Pair-Share, see *Success for All Learners*, pp. 6.13, 6.31-6.32, 6.99.

8. Frayer Model

Students complete a Frayer Model graphic to review and consolidate their understanding of key vocabulary.

1. Provide explicit instruction, models, and guided practice to students as they become familiar with the strategy.
2. Students, individually or in pairs, complete the graphic to review and refine their understanding of key vocabulary.

For an example of a Frayer Model, see *Success for All Learners*, pp. 6.65, 6.66, and 6.113.

References: Frayer, et al., 1969; Billmeyer and Barton, 1998

Applying Phase

As students reach the end a cluster and learning experience, they need to be able to demonstrate they understand the vocabulary that labels the key concepts, both when they encounter this vocabulary in reading and listening, and in writing and talking about the concepts themselves.

1. Semantic Features Analysis

Semantic Features Analysis provides students with the opportunity to determine the meaning of a word by comparing it to other words that fall into the same category or class.

1. Select a general category (cluster, learning experience) for study.
2. Generate a matrix. On the left side, identify key vocabulary terms or concepts within the category that students have been studying.
3. Across the top of the matrix, provide the features that the words might share.
4. Students identify the features of the target words with an X.
5. Students share their choices and their thinking in pairs, small groups, and the whole group.

Semantic Features Analysis (Example)

	/	/	/	/
	Feature	Feature	Feature	Feature
Concept:				
<i>Word</i>				
<i>Word</i>				
<i>Word</i>				
<i>Word</i>				

2. Mix and Match

Students review the meaning or definition of key vocabulary terms. This will allow you to assess student knowledge of terms pertinent to a cluster or a learning experience.

1. Prepare two sets of cards: one set includes key vocabulary terms for a cluster or learning experience; the other includes definitions or explanations for each of the terms.
2. Sort sets of cards and distribute to students.
3. Students (in silence) search to match terms with their definitions or explanations.
4. Once a pair makes a match, they sit together until all others have completed their searches successfully.
5. Pairs share the vocabulary term and its definition/explanation with classmates.

Reference: Kagan, 1992

3. Comic Strip Definitions

Using graphics software, students create a paneled comic strip that incorporates vocabulary. Students include speech bubbles and/or text demonstrating the meaning of vocabulary words within each panel.

4. Vocabulary Bingo

Using a word processor, students play “Vocabulary Bingo.” Students enter new vocabulary to fill the bingo squares. Provide a definition, explanation, synonym, antonym, or cloze sentence for vocabulary words. Students match words on their bingo card to the given clue, highlighting the word or changing the font or colour. The first student to fill in the card or a designated row or column calls “Bingo!”

TIP: In classrooms with one computer, students may create individual bingo cards and print them.

5. Word Graphics or Shapes

Using word-processing or graphics software, students create word graphics that represent the meaning of new vocabulary words. Students share word graphics in an electronic Gallery Walk.

6. What Is the Question?

Collaborative groups of students create “The Answer is...” puzzles using new vocabulary, and quiz peers (e.g., “The answer is ‘title, legend, compass rose, scale, latitude, longitude.’ What is the question?” “The question is ‘What are the elements of a map?’”).

7. Poetry Definitions

Students compose poems (e.g., Cinquain, Haiku...) to illustrate the meaning of new vocabulary.

8. Exit Slips

Reinforce understanding of new vocabulary with exit or permission slips (e.g., students must respond with the correct vocabulary word when given a definition as they leave class).

TIP: Show students a picture illustrating the vocabulary word or provide the word and have students respond with its meaning.