ENGLISH LANGUAGE LEARNERS IN 21ST CENTURY CLASSROOMS: CHALLENGES AND EXPECTATIONS

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Developing a Breadth and Depth of Vocabulary Knowledge

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Introduction

English language learners (ELLs) face a variety of challenges in the content area classroom. One of their toughest challenges, particularly in language-intensive subject areas such as social studies, is understanding the content and expressing what they know about academic concepts. A number of factors impact their reading, listening, writing, and speaking about academic content, including content area reading and listening skills, writing and speaking skills, background knowledge, knowledge of culture, and syntactic knowledge. One critical factor is their development of vocabulary (Saville-Troike, 1984). Effective teaching of ELLs should include vocabulary development. This involves helping students develop a breadth and depth of vocabulary knowledge.

This article discusses a variety of intensive and extensive techniques to help ELLs develop vocabulary, with a focus on techniques that promote a breadth and depth of knowledge of words. Teachers introduce activities that actively involve students in learning words, integrating words with their background knowledge, and developing elaborated knowledge of vocabulary. Discussion centers on instructional

techniques and activities that help students learn all there is to learn about vocabulary words, such as function, form, appropriateness, semantics, collocation, polysemy, and so on. Specific topics that will be addressed include how to

- integrate new words into their background knowledge,
- elaborate on and expand their knowledge of a words,
- gain access to meaningful repetition of words, and
- help students experience a significant use of words (Carr & Wixson, 1986; Nagy, 1988).

Although helping ELLs become active in learning new words and acquiring strategies to become independent vocabulary learners is also critical, these four ways to help them develop vocabulary through more intensive vocabulary activities are this article's focus.

Developing depth of vocabulary knowledge

Many activities and materials focus on less-intensive vocabulary instruction; most of these involve providing definitions, translations, pictures, synonyms, and antonyms; all to some extent, in context. Such activities are useful, particularly for the few high-frequency words and the small number of medium-frequency words that students may be exposed to inside and outside of class. Repeated exposure to and use of these words, in reading, writing, listening, and speaking, helps add depth and contextual and conceptual knowledge to the definitional knowledge that students gain through these less-intensive vocabulary activities and

materials. How about the very large number of low-frequency words that students may be exposed to and use infrequently? How can teachers help students develop more in-depth knowledge beyond the definitional knowledge they may gain in less-intensive vocabulary instruction? According to Vacca, Gove, Burkey, Lenhart, and McKeon (2008), in order to develop contextual and conceptual knowledge of words sufficient to comprehend and learn vocabulary, students need to go beyond memorizing definitions and construct meaning. Memorization does not always lead to lasting knowledge of words, which results more from students connecting words to prior knowledge and experiences through multiple encounters in new contexts than from memorization (Allen, 1999).

Before discussing ways to help ELLs develop a deep and lasting knowledge of vocabulary, it would be helpful to look at what depth of knowledge of a word entails. What does it mean to fully know a word? Knowing a word goes beyond knowing the form and definition of the word; it entails knowing the concepts that the word represents, associations with other words and concepts, collocations, different meanings, connotations, and other aspects (Nation, 1990).

For ELLs, developing conceptual knowledge is not just a matter of learning new labels for familiar concepts. Exposure to a concept entails contact with the words (which could number in the thousands) that provide descriptions, attributes, examples, explanations, classifications, and other aspects of the concept (Vacca et al., 2008). Conceptual knowledge of words includes knowledge of the complex network of relationships that make up the concept. Even if ELLs know a concept in their language, varying degrees of knowledge of a concept, as well as cultural differences, may affect attributes

and other aspects of the concept. Learning vocabulary in the pursuit of concept development helps students understand the multifaceted relationships among words, concepts, and experiences (Vacca et al., 2008), which is more effective than learning through definitions (Johnson, 2001). Repeated contact with words in context helps students integrate the words and concepts (as well as associated words) into their background knowledge and thus expand their knowledge of words. Activities such as semantic mapping and semantic feature analysis, discussed in detail below, help make these relationships and attributes clearer.

Contextualized vocabulary development

Students gain a depth of knowledge of words through repeated exposure to these words and concepts in context. Through exposure to and work with words in context, students are not only exposed to all the words associated with the concept but also to collocations of words, connotations, derivatives, nuances of meaning, and more. Having students work with words in activities that connect words and content to literary, informational, and academic texts is more effective than having them work on isolated vocabulary exercises, and devoting sufficient time to contextual reading helps students develop vocabulary knowledge (Vacca et al., 2008). The more exposure to language in context that students gain, the more depth and breadth of vocabulary students will develop.

Just as repeated encounters with words while comprehending text influences vocabulary development, vocabulary development also influences reading

comprehension (Nagy, 1988). When teachers facilitate the development of comprehension abilities, they thereby encourage ELLs to read more independently to satisfy their own curiosity and interests. The more students read about topics of interest on their own, the more exposure they gain to concepts and related words in context, which helps them expand their vocabularies and develop conceptual and contextual knowledge to supplement their definitional knowledge. As ELLs gain vocabulary and background knowledge about a topic of interest, they may find it easier to read and comprehend content about similar topics. One reason to include vocabulary development activities, such as semantic mapping and semantic feature analysis, that tie in with reading activities is that they not only help students develop in-depth knowledge of vocabulary, but also help students comprehend text.

Intensive vocabulary development activities work well before lessons or reading assignments. Vocabulary activities that focus students on significant vocabulary and activate background knowledge on concepts before students read or listen to subject matter may help students comprehend the material more than vocabulary activities or discussion questions after the reading assignment. Students will be more prepared to participate and use significant vocabulary from the content in class and group discussion.

Facilitating vocabulary use

Along with repeated opportunities to gain exposure to vocabulary in context, students also need opportunities to use the vocabulary in meaningful situations. Vacca et al. (2008)

discuss the importance of having students use vocabulary words and original utterances or sentences in order to process the vocabulary in depth and make connections to their background knowledge. They emphasize the importance of vocabulary development through reading and recommend that students be given opportunities to use significant vocabulary in various written and oral responses to reading (2008). Allen (1999) suggests that in order for students to integrate new words into their background knowledge, they should use the word in meaningful contexts for 10–15 times. Teachers need to integrate activities that give students opportunities to use vocabulary in pair, group, or class discussions or in writing; they also need to encourage students to use the vocabulary outside of class, such as in online discussion forums.

Much of the discussion here has been on learning vocabulary through exposure to and use of written text. Because preschool children are already able to understand and use in listening and speaking some vocabulary that they have learned at home, many vocabulary activities developed for native-speaking children focus on development of vocabulary tied in with reading and writing activities (Vacca et al., 2008). However, many ELLs may not have had many opportunities to understand and use English vocabulary in oral communication inside and outside the home. Their exposure to English vocabulary may be limited to reading and writing words they know, and they may need more opportunities to develop their ability to listen and understand such vocabulary and to use new vocabulary in oral interactions.

Grouping ELLs with their native-speaking peers for discussions or to work on a particular concept can provide

opportunities for them to hear related vocabulary and gain repeated exposure to words in context. It also provides opportunities for them to use the vocabulary in oral interaction with group members. To ensure that ELLs can and will participate, some roles, structure, and support can be integrated into the group work to facilitate their participation and vocabulary use. For example, group members can be given specific roles that are differentiated in such a way that the success of the group work depends on contributions from all group members. Structures such as the cooperative learning structure jigsaw can be integrated so that ELLs gain exposure to discussion of their particular parts with peers who share the same roles and opportunities to contribute in a narrower context before contributing to their own groups. Support can also come from supplementary material (appropriate to the level of the ELLs' proficiency) distributed before the group work that helps ELLs. Support can simply mean providing additional time for ELLs to prepare, either before participating in group work or by integrating an online discussion forum into group work. This gives them time to figure out what they want to say and then how to say it before responding, instead of having to think of both things simultaneously. Their peers can provide a form of support, through patience and encouragement. When ELLs cannot express their meaning clearly, their peers can help them express their ideas through negotiation of meaning.

Facilitating vocabulary exposure and use outside of class

Students need multiple opportunities to experience and use vocabulary in meaningful contexts (Echevarria, Vogt, &

Short, 2004). However, it is difficult to provide sufficient exposure and opportunities in the classroom for students to be able to fully integrate the vocabulary with their background knowledge and quickly access the vocabulary during comprehension and production of language. Therefore, students also will need multiple occasions to use vocabulary in numerous meaningful contexts outside of the classroom.

Since the majority of words occur infrequently, how does a teacher choose which ones to emphasize in vocabulary instruction? One answer is to allow student input and choices of which words to cover in detail during class activities. To ensure that students will continue to have opportunities to practice outside of class the words and associated vocabulary that they learned in class, teachers need to allow students input on the vocabulary covered in class. If students are learning vocabulary related to their interests in class, they will be more motivated to get more exposure to and to use the vocabulary outside of class. Vocabulary activities that take into account student interests will also provide the definitional, conceptual, and contextual knowledge that will help students comprehend and produce targeted vocabulary, along with associated words, attributes, collocations, and so on, outside the classroom (Ruddell, 2001). At the intermediate and advanced levels, when vocabulary development is critical, vocabulary instruction related to topics students are interested in will facilitate their exposure to and use of vocabulary outside of class in meaningful contexts and allow them to gain exposure to more related words, incidental vocabulary, and so on. "Making vocabulary learning meaningful and useful has always been the difficult part" (Allen, 1999, p. 40). Allowing student input into the

choice of vocabulary words and topics studied intensively in class along with less concentrated instruction on district or teacher-selected vocabulary may make vocabulary learning more meaningful and less difficult for students.

Activities for vocabulary development

There are a variety of instructional activities that focus on in-depth vocabulary development. Below, two common vocabulary instructional activities will be discussed: semantic mapping and semantic feature analysis.

Semantic mapping

Semantic mapping can illustrate how words are related to other words or to a central concept, showing such relationships as category, class, example, and attribute relationships (Heimlich & Pittelman, 1986). It can be used to introduce and organize concepts, topics, or other content or words. Semantic mapping can be used to not only develop more depth of knowledge about a word or concept but also to introduce associated words and show relationships that will help ELLs comprehend written or oral text about the topic or content; in addition it can provide ELLs with knowledge of language and content to use in writing or talking about the topic. Semantic mapping can provide more conceptual and contextual knowledge for students so they can gain more exposure to the concept and to related words and to gain more knowledge and confidence in their opportunities to use them in the production of language. Discussing the maps in class is important to reinforce student knowledge of the vocabulary to facilitate further use in written or oral communication

(Johnson, 2001). This gives students opportunities to use and listen to the vocabulary in a mediated context where they can get feedback from their peers and teachers. Since semantic mapping is also used as a comprehension aid, it can give students exposure to the content, language and written context; teachers can also integrate writing activities to give students the opportunity to produce language. This activity can be used to help ELLs build background knowledge and definitional, conceptual and contextual language knowledge. It can help them develop the confidence to interact with others outside of class and to seek further options for vocabulary use, all of which will help them develop a deep and lasting knowledge of vocabulary that will provide the quick access necessary for fluent comprehension and language production. It is also important to note that semantic mapping can vary in terms of complexity or procedure (Heimlich & Pittelman, 1986), or in types of relationships portrayed, depending on the needs or abilities of students. Different types and numbers of steps or activities can also be added or modified to give students more help in needed areas. Categories and relationships can be added or changed to better suit student interests and needs. For example, pros and cons, benefits and limitations, and other relationships can be added if students expect to discuss their opinions on a topic at some point. Students themselves can modify the maps after further exposure and interaction in order to increase the number of attributes or change categories.

Semantic mapping can be done a number of ways. The following application of semantic mapping is adapted from Heimlich and Pittelman (1986). Before lessons, teachers can start by placing one central concept in a circle in the middle

of the board or on a computer program (such as Inspiration) that can be projected. The teacher can then ask students what they know about the concept, allowing students to call out words or phrases that the concept calls to mind. The teacher can write the words that students contribute anywhere on the board around the concept. Teachers can contribute their own words that they think are important and that students have not mentioned and add them to the board as the discussion continues. After the teacher decides that there are a sufficient number of words on the board or the students cannot think of more, the teacher can ask students to think about what certain words on the board have in common. For example, if the concept is *elections* and some of the words that the students and teacher had contributed were *Democrat*, *Republican*, and *Green*, then the teacher can lead students to group these words together and think about what these words have in common and find a word or term that classifies these words, such as *political party*. The teacher can lead students to group related words together in subcategories of the main concept.

This can accomplish a number of things. It allows ELLs to encounter a variety of words contributed by native speaking peers. It can help students activate knowledge about the concept before reading about or discussing it, which can facilitate comprehension and discussion. It helps provide an organizing framework for students to build on as they read or discuss the concept. It also allows the teacher to find out what students already know about a concept and what gaps in knowledge exist. It allows teachers to introduce vocabulary (words the teacher contributes to the semantic map) so that students see potentially unfamiliar words grouped with familiar

ones that may provide clues to their meaning. It signals the words in the upcoming reading that require further exploration.

During reading assignments or discussions of the topic, students can add to the map (either copied from the board or printed out or sent to them electronically). Teachers can manipulate the maps to help students keep their notes and additions in an organization that reflects what teachers want them to focus on (compare and contrast, cause and effect, and so on).

After the lessons, students can turn in their expanded maps, or the teacher can project the original map (or draw attention to the prior map on the board) and have students collectively, in groups or as a class, discuss and expand the map, with the teacher writing the additions on the board or recorders in small groups adding to the group map. This can help the teacher monitor and assess what students have learned. The expanded map may also be used to help students organize their ideas and write about the concept.

This provides students with a memory aid to prompt their use of vocabulary from the map in either discussion class) or writing. In discussions, it gives ELLs exposure to additional related vocabulary that their peers and teacher may provide.

Semantic Feature Analysis

Semantic feature analysis is a way that a teacher can take a set of words related to a topic or category and compare or contrast the words in terms of their features, characteristics, or attributes. According to Pittelman, Heimlich, Berglund, and French (1991), semantic feature analysis can be done on a grid with the set of related words listed down the left side and

the shared features or characteristics listed across the top of the grid. The words can be chosen by the teacher, students, or both. Individually, in groups, or as a class, students analyze and figure out which words possess which features, indicating the absence or presence of a feature for a particular word with a plus or minus sign. Upon finishing, the students can discuss their findings.

This activity gives students opportunities to discuss sets of words related to a topic or concept, along with their characteristics. It introduces them to unknown words and characteristics that can be added and discussed, although it is important to make sure that students are familiar with all of the words and attributes before their analysis and discussion of the words. Unlike semantic mapping, semantic feature analysis is not commonly used as a comprehension technique in reading. However, it can expose students to words related to a topic and their unique aspects that may provide language and background knowledge that may be useful in a future meaningful context. Student input and choice in terms of the topic will enhance the potential for future practice, but teacher participation in selecting words and attributes is important, particularly presenting new labels for words and characteristics that ELLs may know in their first language but not in their second language.

As with semantic mapping, the first thing that the teacher can do is elicit what students know. The teacher can introduce the topic and ask students to contribute words related to the topic to fill out the left column. For example, with the topic *transportation*, the teacher might elicit types of transportation and list what students suggest in the left column and contribute important terms that students leave out. Then the

teacher can elicit from students features of the different types of transportation, such as *electric*, *wings*, or *tracks*, with the teacher also contributing. Individually, in groups, or as a class, students can analyze each word as to what characteristics it possesses, putting a plus or minus sign on the grid to indicate which word has which features (Pittelman et al., 1991).

A semantic feature analysis can be done during a reading assignment or lesson. For example, a teacher could give students blank grids to fill in as they read a story or book. If the topic were *characters*, as they encounter each character students could list them in the left column of the grid. Across the top, students could write down attributes of each character, such as *courage or daring*. After a reading or lesson, the completed grids could be used as a basis for group or class discussion. Students might also use them as notes for the same.

Recommendations

These two activities are excellent examples of intensive vocabulary building strategies that can provide students with a depth of knowledge about significant vocabulary that goes beyond definitions. They also serve to activate background knowledge that students can use as context to comprehend vocabulary and content. Content area and language teachers should consider adding such vocabulary activities to their repertoire of instructional strategies to facilitate learning. The main objective is to provide support in content area lessons to help students get the most exposure to vocabulary and concepts in context from reading and listening to subject

matter. It is important for content area teachers to help students process vocabulary and concepts. Helping students develop vocabulary knowledge should not be the sole responsibility of language teachers or specialists. Intensive vocabulary activities have much capacity for facilitating content area learning as they aid student comprehension and learning of academic concepts.

Student production of vocabulary in writing and speaking is as important to their acquisition of vocabulary as contextualized exposure in reading and listening to content. It is important for teachers to provide students with incentives and opportunities to use vocabulary. The motivation to employ vocabulary and gain further contextualized exposure can derive from student input on topics to be explored more fully.

Teachers can do a number of things to facilitate vocabulary development in and outside of the classroom. The following recommendations can help teachers provide students with the type of contextualized exposure to and productive use of vocabulary they need to develop academic vocabulary.

- Integrate content and language development.

For language teachers, this means introduction and work with language within the context of subject matter that students learn along with the language, although the primary focus is still on language. For content area teachers, the focus is on learning content, but in a way that is sensitive to the language needs and abilities of ELLs. It means including vocabulary development outside of language arts, incorporating

activities and strategies that facilitate ELL comprehension and vocabulary use.

- Integrate the four language skills within lessons. In the language classroom, much focus is on integration of language skills. Lessons may include reading, writing, listening, and speaking. In the content classroom, teachers can also provide students with opportunities to comprehend and use oral and written language. Students may read about or listen to discussion about a topic, discuss it with peers in groups, and then individually or collectively write responses. Teachers may also provide students with choices as to how they encounter and use language through differentiation in content presentation or content understanding. For example, students may have a choice between reading about concepts or watching multimedia resources that provide contextual and graphic support for comprehending specific words as well as opportunities to hear the words.
- Incorporate theme-based curriculum. In theme-based curriculum students learn about a particular theme across specific subject areas. Concepts and related vocabulary are continually presented in new contexts in math, science, social studies, and language arts. This provides students with opportunities to encounter and use specific vocabulary repeatedly in a variety of contexts. For example, a thematic unit about oceans might include the reading of a number of children's books in the language arts, the study of measurement and depth in math, ocean life in science,

oceanography in social studies, and creative activities for art and music..

- Differentiate instruction according to students' abilities and interests. Teachers can have students learn

content with various types of materials that provide support for students at different levels of language proficiency. Teachers can also allow students input on topics and subtopics. In language lessons, teachers can let groups choose content to explore. In content classes, teachers can sometimes allow students or groups to study a particular topic or concept in depth, allowing them to choose which areas or subtopics to explore further. This is one way teachers can help make content relevant to students' interests and lives. Repeated opportunities for students to encounter and use vocabulary in context cannot always be provided in class. If the content is interesting or relevant, students may be motivated to explore it further and gain exposure to related vocabulary outside of class.

- Integrate collaborative project-, problem-, and inquiry-based instruction and activities. These activities

provide ELLs with opportunities to use and comprehend vocabulary while exploring and using content for purposes that may be more relevant to their interests and lives. They usually involve collaborative group work with differentiation of roles so that everyone in the group contributes to the product. Students can choose the information resources they access. Students read and listen to content to gain

information to use in the group product. They discuss what to include and how to complete the project. Students also choose the product that their groups produce. For example, groups can develop a written product and deliver an oral presentation on the product. These types of short-term or long-term activities provide an opportunity for ELLs to encounter vocabulary words in context and use them productively.

Conclusion

To help ELLs meet the challenges they face in the classroom, teachers need to promote vocabulary development as an integral part of their curriculum and instruction. Development of vocabulary and content knowledge commonly occurs together; teachers can facilitate both through activities that focus on vocabulary and conceptual development.

Semantic mapping and semantic feature analysis are two effective activities that promote both vocabulary knowledge and learning of content. Other intensive activities, such as Venn diagrams, also provide more depth than simply learning vocabulary. Such activities go beyond providing students mere definitional knowledge; they also provide deep, lasting contextual and conceptual knowledge that facilitates rapid access to the meanings students need for comprehension or language production (Graves, 2009). Such intensive vocabulary development is needed to complement less intensive activities and materials that provide more depth and breadth of vocabulary knowledge. They are important in

helping ELLs integrate new words into their background knowledge, to elaborate, and to expand their knowledge of words, gain access to repetition of words, and engage in meaningful exposure to and use of words.

Incorporating specific intensive vocabulary activities into content area instruction can facilitate vocabulary development, but many activities, strategies, and materials commonly used for effective content area instruction will also have the same result. Integration of language and content instruction can provide more context to language and vocabulary development than simply learning language from word lists, definitions, and practice in limited contexts. Integration of the four language skills can ensure that students receive contextualized exposure through listening and reading and that they have multiple opportunities to produce and comprehend vocabulary. Theme-based curriculum can provide multiple opportunities for students to encounter and use vocabulary in a variety of new contexts. Differentiated, project-based, problem-based, and inquiry-based instruction provides multiple opportunities for students to encounter and use vocabulary at levels appropriate to their language proficiency; they also provide incentives to learn and use vocabulary through emphasis on making content and vocabulary development meaningful to students' lives and interests. Teachers should remain aware of the importance of promoting contextualized exposure to and meaningful use of vocabulary throughout the school day and beyond, into students' everyday lives.

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