

The Capacity Building Series is produced by The Literacy and Numeracy Secretariat to support leadership and instructional effectiveness in Ontario schools.

The series is posted at:

www.edu.gov.on.ca/eng/literacynumeracy/inspire/

For information: lns@ontario.ca

Why focus on vocabulary?

"... the research indicates that wide reading probably is not sufficient in itself to ensure that students will develop the necessary vocabulary and consequently the necessary academic background knowledge to do well in school. In contrast, direct vocabulary instruction has an impressive track record of improving students' background knowledge and the comprehension of academic content." (Marzano, 2004, p.69)

October 2009

ISSN: 1913 8482 (Print)

ISSN: 1913 8490 (Online)



SECRETARIAT
SPECIAL EDITION #11

A World of Words:

Enhancing Vocabulary Development for English Language Learners

Researchers over more than seven decades have found a strong correlation between vocabulary knowledge and academic performance. Although they have used different definitions and different assessment methods, they have achieved wide consensus. The more words students know, the higher their level of reading comprehension; and the higher their level of reading comprehension, the higher their level of academic achievement.

This monograph offers some practical strategies to help English language learners (ELLs) catch up to their age peers in English vocabulary knowledge. The instructional strategies described here can also be used to strengthen the vocabulary of English-speaking students.

So Many Words!

Let's begin with some basic questions – *How many words do children need to know for success in school? What does it mean to "know" a word? Which words are important?* Experts do not agree on all the answers, but some helpful generalizations can be made.

How many words do children need for success in school?

Estimates vary because different researchers use different methods to define what counts as a word and what counts as vocabulary knowledge. For example, are *run*, *running*, *runs* and *ran* different words or grammatical forms of the same word? Does a word count as a new word each time the learner acquires a new meaning for that word? If we count all alternative forms and meanings, and include all proper nouns and trade names, the number of words in English has been estimated to exceed a million, of which about 110,000 are in common use (Grabe, 2008). Yet no one person knows all 110,000 words! Our knowledge of words relates both to our education and to the context in which we use and encounter them.

Running into new words or different versions of the same word ...

Learners need many encounters with a word in many different contexts in order to understand all its multiple meanings and uses.

Let's look at various forms and connotations of the word *run*.

- Contextualized meanings – *run a race, run a company, salmon run upriver, blood runs cold, news runs fast*
- Phrasal verbs – *run in, run on, run out, run out of, run up against, run into, run up, run down, run through, run over*
- Idiomatic expressions – *run wild, run late, run short, run aground, run for office, run of the mill*
- Compound words and phrases – *runway, runoff, run-in, run-through, runner-up, dog run*

Nation (2001), using a word-family method of counting, concludes that English-speaking children enter Kindergarten with an average of around 1,000 and add another 1,000 with every year of schooling, graduating from high school with a vocabulary of about 15,000 word families. For ELLs who first start learning English in Kindergarten, this would mean that they are already 1000 word families behind their age peers who have been learning English since birth. For ELLs who first start learning English in later years of schooling, the gap between them and their age peers is even greater and the support they need more intensive.

Knowledge of grammatical patterns and common word-forms can considerably reduce the “learning burden” that ELLs would otherwise face if they approached each new form of a word as a new word. Another way to reduce the learning burden is to group words into word families, as recommended by Nation (2001). For instructional purposes, the various forms and meanings to be included in a word family should depend on the age and existing vocabulary knowledge of the learner. For example, a word family based on the root word *strict* might include *strictly* and *strictness* for children in the primary/junior grades, while the word family would be further developed in higher grades by the addition of *restrict/restricted/restriction* and related words such as *constrict*, as these words arise in reading. Children may understand *runner-up* in Grade 1, but a *run on the dollar* will most probably not arise, and therefore not be relevant, until the student is studying history or economics in secondary school.

What does it mean to “know” a word?

For English speakers and ELLs alike, receptive knowledge (understanding the meaning of a word) is usually much greater than productive knowledge (the ability to use that word effectively). ELLs face the additional difficulty of manipulating the many grammatical forms of a word that their English-speaking peers have mastered before even beginning school: e.g., *run/ran/running*.

- If we understand a word when it is spoken, we have receptive knowledge of this word in oral language.
- If we are able to pronounce and use the correct form of that word appropriately in conversations and other oral language situations, we have a productive knowledge of the word in oral language.
- If we understand a word when we read it, we have a receptive knowledge of that word in its written form.
- If we can use the correct form of this word in writing, we have a productive knowledge of that word in its written form.

Which words are important?

Initially, ELLs need to learn the most high-frequency words in order to begin communicating. Most high-frequency words in English are Anglo-Saxon in origin: for example, *big, little, boy, girl, book, mother, father, see, look, go, jump, sleep, in, on, a, the, then*. Even the earliest children's picture books assume an oral understanding of these words. Also, teachers use these words to explain academic terms that may be new to all the students in the class. This is a good approach as long as all students understand the basic vocabulary that the teacher is using to give definitions and explanations. However, ELLs may be left even further behind when it comes to understanding the lesson.

For success in school, children also need to learn many thousands of low-frequency words. These words, mostly derived from Latin, are found in books and in more formal oral discourse, such as lectures and presentations, teacher talk and documentary video. They can be classified as follows:

- **General academic words** – mostly Latin-based words such as *observe* or *accurate*. Abstract nouns such as *observation* or *accuracy* become increasingly important.

- **Subject-specific words** – in common use in a specific subject (e.g., *diameter*, *integer* or *denominator* in mathematics). These words need to be taught as they arise within the context of the subject. Some subject-specific words are common words that have a special meaning in the subject area (e.g., *mass*, *power*, *product* or *volume*). Even the word *and* can have a special meaning in mathematics (plus).
- **Highly specialized, technical or literary vocabulary** – almost always explained in context, and may never be encountered again in a lifetime, depending on the subjects the student chooses to study in the senior grades or in postsecondary education.

Some Approaches to Direct Vocabulary Instruction

In order to catch up to their age peers, ELLs will have to double or triple their rate of vocabulary acquisition. To help them do that, the school needs a coordinated school-wide approach, keeping in mind that in a balanced literacy program, both direct and indirect approaches are key. Below are some familiar strategies to support direct vocabulary instruction, adapted for ELLs. For more ideas see Biemiller (2009), Coelho (2007), Marzano (2005) and Nation (2008).

Shared reading

ELLs benefit in the same way as other students from shared reading, but they can't "share" the text until they are within striking distance of its vocabulary level. If more than 10 words in a running total of 100 are unknown, it is unlikely that they will get much out of a shared reading lesson; the vocabulary load is just too great. In this case, they will need to be given an alternative text.

Tips:

- Focus on new words (or new forms of words) that are either general academic words or subject-related words that are important not only for this lesson but also for future lessons.
- Encourage students to identify parts of the word that they may have seen in other words.
- Draw attention to words and expressions that indicate the organization of ideas (e.g., "When you see this word, *although*, what do you think is coming next: more of the same, or something a bit surprising or unexpected?").

Small-group conversations about words

Teachers can encourage curiosity about words by asking students to think of themselves as "word detectives" and inviting them to bring interesting words to class where they can make hypotheses about their meanings.

Tips:

- Provide a few key words that might be coming up in a new lesson and ask students to find out what they can about the meaning of the word, consulting any sources they wish, including family members and other teachers.
- Ask students to brainstorm a list of words that express fine degrees of difference. For instance, provide the words *always* and *never* and ask students to provide any words they know that mean the same or almost the same, or express meanings somewhere between the two. Show students how to use a thesaurus. Then students can arrange them on a "semantic cline" or continuum of meaning. They can also talk about which words are in common use every day, and which seem to be more formal (e.g., *infrequently*, *seldom*).

Getting further behind ...

"A recently-arrived ELL was asked to write down all words he didn't know that came up in the science lesson. His list, at the end of less than one hour of instruction, was more than 20 words long, and included basic Anglo-Saxon words like *spin* and *turn*, which the teacher was using to explain the terms *rotate* and *revolve*." – Coelho (in press)

"30 on the Wall"

"We call these lists our '30 on the Wall' because they are displayed in a prominent place in every classroom of our school. Every teacher, student, and parent is aware of these content area vocabulary words and students are expected to become intimately familiar with each word during the school year. These are words that students must learn to master as the learning outcomes of each course. Teachers work together by department to create 30 such words at each grade level for every subject area." (Zoul & Link, 2007, p. 143)

Word charts

A word chart is a set of key words that students encounter during intensive reading or in other parts of the lesson. For young children, up to about Grade 2, only single words should appear on the chart. However, beginning in about Grade 3, teachers and students can start building word-family charts and creating lists where they can study words in more depth, for example, examining word roots and various forms and meanings. See the excerpt, below, from the Top Ten Word List for a unit on rocks and minerals (Ontario Ministry of Education 2005, p. 28).

TOP 10 WORDS: Rocks and minerals					
Verb	Noun	Adjective	Related words	Word roots	Examples
form	form formation	formal	inform reform deform	form = shape	This book gives a lot of information about rock formations in different locations in Canada.
locate	location	local		loc = place	
describe	description	descriptive	scribe script prescription manuscript	scribe/scrip = write	Use some descriptive words to write about your sample rocks. Chinese script is completely different from English writing. If you need medicine, you must get a prescription from your doctor.

Tips:

- Provide examples of the words in use, related to the content of the lesson, rather than definitions. Learning definitions does not promote deep understanding of a word.
- Include only the most useful and transferable words on the chart. For example, highly technical terms found in the textbook might not make it into the "Top Ten Words" because such words are usually explained in the text and are of limited general usefulness.
- Keep the learning load manageable. It is not necessary to introduce all the possible forms of a word at once.

Cloze sentences

Cloze is a reading comprehension strategy that allows students to make "intelligent" guesses about the missing words in a piece of text.

Tips:

- Create cloze sentences related to the content of the lesson, omitting the target words.
- For beginners, provide the word in the correct form: e.g., if a past tense verb is expected, provide the word in that form. See example below:

observed location formation geology
examined mineral description

We _____ our rocks using a magnifying glass

- Create word banks for the lesson that have at least one more word in the bank than will be needed and provide more challenging examples for students with greater proficiency in English. For example, give them the Top Ten word families and ask them to choose not just the best words but the most appropriate form of the word to complete the cloze sentences.

Some Word-Learning Strategies

Teaching students word-learning strategies such as using context and word parts to unlock meaning is tremendously important. With tens of thousands of words to learn, it is absolutely necessary to help students become more proficient, independent word learners.

Fortunately, we can do a lot to sharpen students’ skills in learning words on their own (Graves, 2006, p. 91.).

Making inferences from context

Teachers can model how to look for possible clues about the meaning of new words first by looking within the sentence and then by either going back to preceding sentences or forward to the next sections of the text. Teachers can also show students that on first encounter with a word it may not be necessary to understand it fully in order to get a general understanding and keep on reading.

For example, in a shared reading lesson from a text about birds, a child asks the teacher, “What’s this word?” (pointing to a word in the text). The teacher returns to a sentence in the text and reads aloud “ ... and the peacock’s brilliantly-coloured plumage is probably the most dramatic of all.” “Hmmm, this word *plumage* ... First, let’s look at the picture. Yes, the colours are brilliant, very bright, and it’s very dramatic, it really gets your attention, but what is plumage. Let’s take a guess ... what do you think? Yes, feathers is a good guess and it makes sense, so I think we’ll go with that. If the word is important, we will meet it again and will be able to tell if we were right or not.”

Word analysis

When a word is essential for continued understanding of the text, and context clues don’t help, the student’s next recourse is word analysis. A knowledge of common Greek and Latin word roots and affixes can help to unlock the meanings of thousands of low-frequency words. A Top Ten Word list can be used to introduce important word roots and affixes, gradually building up a list over the school year with many examples of words that include the word parts. Here is a chart generated from the Top Ten Word List for rocks and minerals reproduced above (see page 4 of this monograph). More examples can be added as they arise in class or in independent reading.

Prefix	Usual Meaning	Examples
re-	again, back	reform, return, repeat, relocate
dis- di- dif-	not, apart, away	dislocate, dislike, disagree, distance

Suffix	Type of word	Examples
-al	adjective	mineral, formal local, usual
-ist	noun: a person	mineralogist, geologist, artist, dentist, racist

The suffixes in the chart are derivational: that is, they indicate the function of the word in a sentence (noun, adjective, verb, etc.) and may contain additional meaning (e.g., the noun suffix *-ist* usually indicates a person). There is another type of suffix that may cause difficulty for ELLs. These are the inflectional suffixes or grammatical endings such as *-ed* on the end of a verb to indicate past tense. English-speaking students have mastered these before beginning school; ELLs require instruction and feedback, and may take five years or more to acquire all of them.

Contextual cues ...

- an explanation or definition provided in the text, occurring immediately before the word or afterwards, between commas or in parentheses as in our *ancestors* (people who lived long ago)
- an illustration or diagram
- an example: e.g., cats and other felines
- information in preceding sentences or paragraphs

Finding word roots ...

Knowing that [English] words can be broken down into meaning units is a powerful strategy for vocabulary development. Until recently, teaching word roots was a strategy reserved for upper grade or content area classrooms. But a growing body of research tells us that this strategy should be introduced early. (Padak, Newton, Rasinski & Newton, 2000, p. 6)

The English affix system is very productive in forming new words. Some words have both prefixes and suffixes, as in *information* or *informed*, and some have more than one of each, as in *misinformation* or *informational*. For students of some language backgrounds, the concept of creating new words by adding prefixes and suffixes is totally new, and may create difficulties for some learners. Teachers can help by showing students the basic building blocks (roots and affixes) so that they can recognize them in new words. This can dramatically improve students' reading comprehension and enhance their ability to use new words appropriately. For more strategies, see Coelho (2007).

Using dictionaries and other reference tools

Picture dictionaries, based on two or three thousand words and arranged in thematic sets, rather than alphabetically, are very useful learning tools for beginners of all ages. It's best if students work with an ESL teacher, a volunteer or an English-speaking peer, because they need to practise saying these words and responding to prompts such as "Point to the ..." or "Show me the yellow ...". Some picture dictionaries are available in bilingual versions, and are supported by print and online resources and activities.

Students who can already read in their own languages need bilingual dictionaries (including electronic dictionaries) as essential survival tools. Many children bring their own to school with them. It is a good idea to provide bilingual dictionaries in the library for students to refer to, and encourage beginners to carry their own pocket dictionaries. However, when a text is too difficult, many ELLs try to compensate by referring to the dictionary for every new word. This approach slows down the reader so much that overall comprehension may be lost. If there are more than five new words per hundred running words, you have found the problem!

Because all dictionaries do not use the same system, it is important to teach students to use the information at the front of the dictionary, such as the abbreviations and the pronunciation guides. Encourage them to continue using other information such as context clues in order to decide which of several given meanings for a word is the right one for the context, or word analysis and word labels in order to decide which form of the word is required in the sentence they are composing.

Instilling a Love of Reading

People with large vocabularies develop their knowledge of words through reading. As long as the text is interesting and does not contain a lot of new words, this can be a pleasurable way for ELLs to expand vocabulary, enhance awareness of English sentence structure and learn about different writing styles and text forms.

Tips:

- Set aside a regular time for independent reading and encourage students to read all kinds of material and to read as much as possible.
- Invite students to choose their own reading material – but encourage them to choose a suitable reading level and if their selection turns out to be boring or too difficult don't force them to persevere.
- Provide a variety of fiction and non-fiction material to appeal to students' interests, including magazines, comic books, graphic novels, children's picture books, young adult fiction, newspapers and how-to manuals.
- Include texts or books on the list designed specifically for ELLs, with controlled vocabulary and sentence structure (some retell classic or traditional stories; others are simplified versions of contemporary adult fiction).

- Provide recorded books for students at the beginning level. These must be recorded at a slower speed than would be appropriate for most English-speaking children; the readers need time to follow the text as they listen.
- Follow-up activities should focus on the learner's personal response to the material – no book reports or comprehension quizzes, please! Most students enjoy talking about their books with partners who have read the same book (though they should not be required to do this with every book). Students may also enjoy reading favourite sections aloud to cross-grade tutors, or providing a “one-minute commercial” for the class. From time to time, students can write journal responses.

Assessing Vocabulary Knowledge

Assessment of vocabulary development among ELLs is not the same as for English-speaking students, because their starting points and learning goals are different. They may start thousands of words behind their peers and they have to learn at a much faster rate. For example, depending on their age when starting, elementary students need to learn at least 10 words a day (approximately twice the rate of their age peers), while secondary students need to learn about 15 words a day (three times the rate of their age peers). These are ambitious targets, yet they are attainable with sufficient instructional support, and they will enable ELLs to catch up to their age peers in five years.

Assessment needs to include two components: assessment of vocabulary size and ability to use vocabulary acquisition strategies.

Assessment of vocabulary size

Assessment needs to begin with a baseline assessment: how many words do students know at the beginning of the year? This can be compared with vocabulary size at the end of the year or at the end of each major reporting cycle.

In designing assessment tasks, it is important to refer to published lists of high-frequency words such as the revised General Service List available online (Bauman, 1996). Assessment tasks such as matching pictures and labels, matching words and definitions through multiple choice and cloze items are very useful. These may be based on reading passages written at a specific level (the 1,000-word level, 2,000-word level, etc.). Nation (2001) provides the Academic Word List as an appendix, as well as guidelines for designing assessments at various levels and examples of tests that teachers can use or adapt for their own students. It is also useful to give students a list of 10 words at a given level and ask them to use at least five in a piece of writing, such as a response to a reading passage.

Assessment of vocabulary acquisition strategies

Assessment of students' ability to use vocabulary acquisition strategies may be carried out as a written task based on a reading passage containing no more than five unknown words per one hundred running words. Alternatively, in a reading conference with an individual student, the teacher can prompt the student to use various strategies to figure out the meaning of a specific word, such as making an inference from context, analyzing its parts, or to looking it up and choosing the best meaning in a dictionary. Students need frequent opportunities to reflect on the strategies that are working for them and to set goals that enhance their skills.

What ELLs need in brief ...

While most of the instructional approaches and strategies described in this article are helpful for all students, the starting point and learning goals for ELLs are different. They need opportunities for both extensive and intensive reading of material at the appropriate level, as well as direct instruction on academic words, word roots and affixes, and vocabulary acquisition skills, in order to make the necessary gains that will enable them to make progress.

Supporting English Language Learners, Grades 1 to 8 ...

Print and video resources for teachers, principals and other members of the school team:

<http://www.curriculum.org/LNS/ELL/index.shtml>

Email:
LNS@ontario.ca

Annotated References

- Bauman, J. (1996). *The General Service List*. Retrieved July 30, 2009 from <http://jbauman.com/index.html>. This is an updated version of the General Service List of 2,000 high-frequency words that was first published in 1953.
- Biemiller, A. (2009). *Words worth teaching*. Whitby, ON: SRA/McGraw-Hill. The author lists some 1600 word meanings that he recommends should be introduced and used in context in the primary grades (preferably by the end of Grade 2). Another 2700 word meanings are identified for use during the junior grades.
- Coelho, E. (in press). *Newcomers in the classroom: Welcoming and supporting immigrant students*. Clevedon, England: Multilingual Matters. This book is an introduction to immigrant education for teachers and school administrators as well as educational planners in communities or regions that are in the process of developing plans and programs for newcomer students.
- Coelho, E. (2007 [2004]). *Adding English: A guide to teaching in multilingual classrooms*. Toronto: Pippin Publishing. Chapter 5 provides an overview of key concepts in vocabulary development as well as charts of common affixes and suggestions for extensive reading. Chapter 11 includes some suggestions for vocabulary development among beginning learners of English, and Chapter 12 suggests some ways of integrating vocabulary instruction into subject-area lessons.
- Grabe, W. (2008). *Reading in a second language: Moving from theory to practice*. Cambridge, UK: Cambridge University Press. This book explains the cognitive processes involved in reading. Chapter 13 focuses on vocabulary and reading comprehension.
- Graves, M. (2006). *The vocabulary book: Learning and instruction*. New York, NY: Teachers College Press (co-published by the International Reading Association and the National Council of Teachers of English). Chapter 5 "Teaching Word-Learning Strategies" is available online: <http://www.reading.org/General/Publications/Books/bk9214.aspx?mode=redirect>
- Marzano, R.J., & Pickering, D.J. (2005). *Building academic vocabulary: Teacher's manual*. Alexandria, VA, USA: Association for Supervision and Curriculum Development. This book includes practical approaches and examples based on the research base explained in Marzano's 2004 publication (see below).
- Marzano, R.J. (2004). *Building background knowledge for academic achievement: Research on what works in schools*. Alexandria, VA, USA: Association for Supervision and Curriculum Development. This book provides a thorough and inspiring analysis of what is needed and what works in vocabulary instruction. Sample chapter available online at <http://www.ascd.org/publications/books/104017.aspx>
- Nation, I.S.P. (2008) *Teaching vocabulary: strategies and techniques*. Boston, MA: Heinle. This book by the world's leading expert on vocabulary development for ELLs provides many examples of practical classroom activities involving listening comprehension, reading comprehension, and oral and written production.
- Nation, I.S.P. (2001) *Learning vocabulary in another language*. Cambridge, UK: Cambridge University Press. This very useful book includes instructional strategies and suggestions on assessment. Chapter 1 explains important concepts such as word families, function and content words, and high- and low-frequency words. This chapter is available online at <http://catdir.loc.gov/catdir/samples/cam031/2001269892.pdf>
- Ontario Ministry of Education. (2008). *A guide to effective literacy instruction, Grades 4 to 6. Volume Six. Writing*. Toronto, ON: Queen's Printer for Ontario.
- Ontario Ministry of Education. (2005). *Many roots, many voices: Supporting English language learners in every classroom*. Toronto, ON: Queen's Printer for Ontario.
- Padak, N., Newton, E., Rasinski, K., & Newton, R.M. (2008). Getting to the root of word study: Teaching Latin and Greek word roots in elementary and middle grades. In Farstrup, A.E., and Samuels, S.J. (Eds.), *What research has to say about vocabulary instruction*. Newark, DE: International Reading Association.
- Zoul, J., & Link, L. (2007). *Cornerstones of strong schools: Practices for purposeful leadership*. Larchmont, NY: Eye on Education.

Some Interesting Websites

- Ask Oxford.com*. Information about the English language from the Oxford English Dictionary, answering questions such as, how many words are there in English? <http://www.askoxford.com:80/asktheexperts/faq/aboutenglish>
- Compleat Lexical Tutor*. This site offers background research on vocabulary acquisition as well as examples of vocabulary level tests and study aids for older adolescents and adults studying English or French. Materials can be adapted for younger students. <http://www.lex tutor.ca/>
- Dave's ESL Café*. Classroom ideas section includes activities for vocabulary development. <http://www.eslcafe.com/ideas>
ESL magazine: print and online resources related to teaching ELLs. Some articles available online. www.eslmag.com
- Internet TESL Journal*. Provides some online vocabulary quizzes related to basic topics such as clothes or animals that beginners can do in pairs or groups, or with the help of a peer tutor. www.iteslj.org
- Online Etymology Dictionary*. This site provides interesting information on the history and evolution of more than 30,000 words, including slang and technical terms. <http://www.etymonline.com>