eVoc Strategies: 10 Ways to Use Technology to Build Vocabulary

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These 10 eVoc strategies use technology to support the wide reading, direct instruction, active learning, and interest in words that are essential to vocabulary development.

An eVoc strategy is an electronic, or technology-based, strategy that teachers can use to develop students' vocabulary learning and interest in words. We use the term *eVoc* both to highlight that the strategies rely on digital tools and resources and to suggest the *evoking* of learning potential that is possible when technology and media are part of the instructional mix.

As literacy educators, we need to use the tools that 21st-century technologies afford us (International Reading Association, 2009). Nearly 100% of schools in the United States have Internet access (Wells & Lewis, 2006). In 2010, we can assume that access to information and communication technologies (ICTs) will continue to improve with the increased availability of inexpensive mobile devices and the U.S. Department of Education's inclusion of technology in education reform (National Education Technology Plan, 2010).

Although the pervasiveness of ICTs in all aspects of 21st-century life is quite clear and well accepted, it is less clear how teachers might successfully integrate technology into literacy instruction and specifically vocabulary instruction. Improving students' vocabulary is an area of urgent need if we are to develop the advanced literacy levels required for success in school and beyond (Biancarosa & Snow, 2006; Graves & Watts-Taffe, 2008). Vocabulary is also an area where teachers are asking for guidance on instructional approaches, strategies, and materials (Berne & Blachowicz, 2008). We believe that digital tools and media are available in most schools that teachers could harness *now* to improve vocabulary learning, tools that capture the interest of students and that provide scaffolds and contexts in which to learn with, and about, words more profitably.

The purpose of this article is to highlight 10 eVoc strategies that hold promise for improving vocabulary learning in intermediate grades and that employ digital tools and resources that are readily available and feasible to implement in today's schools. Given the fast pace of technology innovation, not all of these eVoc strategies have direct research evidence; however, they are all supported by research on effective vocabulary instruction, much of it carried out with print materials (National Institute of Child Health and Human Development [NICHD], 2000; Pearson, Hiebert, & Kamil, 2007), and multimedia learning (Fadel & Lemke, 2008; Mayer, 2001).

We encourage teachers to select one or more of these eVoc strategies to try out and adapt to their particular students, curricula, and teaching context. We hope that they share their successes and limitations with their colleagues and with the broader literacy community on the Internet. In the following sections, we first summarize research on vocabulary learning and then present 10 eVoc strategies organized by three principles of vocabulary instruction applied in a digital context. Across all three areas, the role of interest and engagement with words and word learning is addressed.

What Does Research Tell Us About Vocabulary Learning?

Even within our increasingly visual world (Kress, 2003), words remain our primary means of

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communication. The National Reading Panel Report (NICHD, 2000) and the RAND Reading Study Group (2002) heightened the importance of vocabulary instruction for student literacy learning. Books and articles on vocabulary instruction are popular (e.g., Beck, McKeown, & Kucan, 2008; Blachowicz & Obrochta, 2005; Graves & Watts-Taffe, 2008), and research on vocabulary is enjoying renewed attention.

Why is vocabulary learning so important? To understand a text, one must understand the words that represent the ideas or concepts. Studies confirm the high correlation (0.6 to 0.8) between vocabulary knowledge and reading comprehension (Baumann & Kame'enui, 2004; Pearson et al., 2007). We also know that there are degrees of word knowledge, from "I've never heard this word before," to "I know this word and can apply it in multiple contexts" (Lubliner & Scott, 2008), as well as metacognitive knowledge about how to apply prior knowledge and strategies to vocabulary learning (Beck et al., 2008).

Of particular concern to educators is the development of academic language. Although we learn oral language that enables us to speak to one another fairly easily, learning academic language is more complex because it involves abstract literacy tasks and language not customarily used in oral speech (Fang, Schleppegrell, & Cox, 2006; Zwiers, 2007). Academic language is a second language, because all literate people must learn it to enable them to access academic content (Solomon & Rhodes, 1995).

For English learners (ELs), academic language may represent the task of learning a third language. Thus, special care must be taken to give them every advantage in learning academic language, particularly in content areas. For example, research suggests that Spanish-speaking students can be taught to recognize cognates (i.e., words with similar meanings that look and sound alike in two languages, such as *operation* [English] and *operación* [Spanish]) and use cognate information to comprehend English texts (Lubliner & Grisham, in press; Proctor, Dalton, & Grisham, 2007).

PAUSE AND PONDER

- What eVoc strategies are most attractive to you for your student population? Are these consistent with your current reading program and vocabulary instruction?
- What technology tools must be in place and available to you to use the eVoc strategies suggested in this article?
- What supports for teachers are needed to make using the eVoc strategies feasible? Are these readily available in your context?
- How would these eVoc strategies assist you in meeting the needs and interests of today's students?

We know that there is a wide range in students' word knowledge and that as early as age 5, there is a 30-million-word exposure gap between "haves" and "have nots" (Hart & Risley, 1995). The results of this gap are manifested in students' literacy learning, particularly reading comprehension. The Matthew Effect, where strong readers get stronger and weak readers get weaker (Stanovich, 1986), as well as the fourth-grade reading slump (Chall & Jacobs, 2003), can be attributed, at least in part, to a less developed store of conceptual knowledge and vocabulary.

The good news is that we can improve vocabulary learning and address the gap by actively and systematically teaching vocabulary to our students (Pearson et al., 2007; Zwiers, 2007). Teaching words, morphology, and word origins is an important component in any vocabulary learning program. It is also necessary to provide multiple exposures to the word in different contexts and to teach word learning strategies, such as using context clues, cognate information, and deciding when a word is important to know and remember. Although teaching can make a real difference in vocabulary learning, explicit teaching of vocabulary is not enough; a dedicated teacher can teach perhaps 300–400 words per year (Beck et al., 2008).

Direct vocabulary instruction is essential, but research indicates that students with well-developed vocabulary learn many more words indirectly through reading than from instruction (Cunningham & Stanovich, 2001; Nagy & Herman, 1985). Two strategies that encourage children to read widely and deeply are to provide an array of reading materials that capitalize on their interests and to set aside time for reading during the school day and at home (Trelease, 2006). Conversations about their reading with adults and peers also strengthen students' word learning (Biemiller & Boote, 2006).

Whether directly teaching vocabulary and word learning strategies, or increasing students' volume of reading, an important research-based principle that

applies across the board is to promote a lively interest in words through student expression and participation in a learning community that enjoys playing with words, builds on individual interests as well as curriculum needs, and emphasizes self-efficacy in word learning (Beck et al., 2008; Graves & Watts-Taffe, 2008).

These recommendations to improve vocabulary by encouraging wide reading, teaching words and word learning strategies, and promoting active learning and interest in words are not new. The purpose of this article is to encourage teachers to apply these research-based recommendations in new ways, using digital tools, media, and the Internet—that is, to deploy technology in service of vocabulary learning.

Despite the ubiquity of technology and media, it is not on teachers' priority lists of vocabulary instruction strategies and materials (Berne & Blachowicz, 2008). We address this gap by offering 10 eVoc strategies organized into three instructional areas. First, we offer strategies for teaching words and word learning strategies. Second, we focus on on-demand digital language tools to support just-in-time strategic vocabulary learning and reading. Third, we suggest ways to increase the volume of reading to support students' incidental vocabulary learning. Along the way, we offer ways to stimulate students' interest in words and self-efficacy. Technology, when used flexibly in response to students' varied needs and interests, can and should be part of the solution to the vocabulary gap.

Teaching and Learning Vocabulary

The first five eVoc strategies focus on explicit teaching of vocabulary and helping students become independent word learners.

eVoc Strategy 1: Learn From Visual Displays of Word Relationships Within Text

Developing breadth and depth of vocabulary depends on building connections between words and developing elaborate webs of meaning (Boulware-Gooden, Carreker, Thornhill, & Joshi, 2007). Graphic organizers and visual displays highlight the relationships between words (Baumann & Kame'enui, 2004). Two of our favorite word mapping tools that support visual representation are Wordle and Wordsift.

Wordle (www.wordle.net) is a free Web application that allows you to create a word cloud based on the frequency of words in a particular text. It can be used to stimulate students' thinking about the meaning, importance, and relationship of words as they analyze, create, and publish Wordles. To create a word cloud, you paste text into the applet and then manipulate the visual display by selecting the color scheme, layout, and font. Word clouds can be used to highlight keywords and themes to prepare students for reading, as well as prompt discussion after reading.

For example, we created the word cloud in Figure 1 based on an online *National Geographic Kids* article about the troubling disappearance of honeybees in North America (kids.nationalgeographic.com). Questions about this Wordle might include the following:

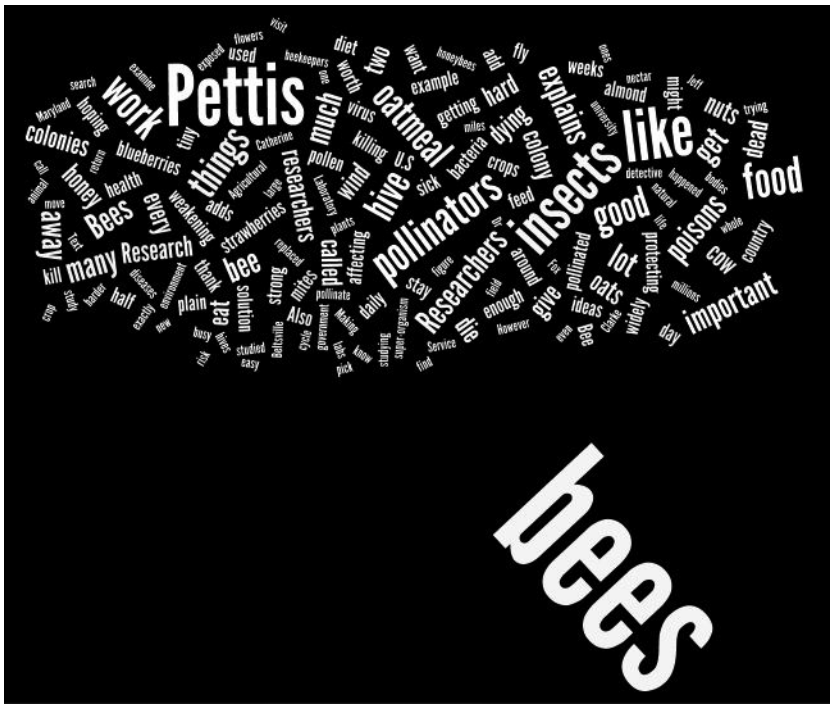
- What does the word cloud suggest this article is about?
- What seem to be the most important words?
- How do these words go together?
- Why do you think the Wordle designer chose this shape of word cloud? (Hint: Think of what bees look like when they swarm.)

Students will most likely conjecture that the article is about bees. Some students may notice the less prominent words—*dead* and *poisons*—and wonder if the bees are sick. When asked about the color choice, they may speculate that the author/designer chose bright colors to get your attention, or that black goes with poison. What is important in this kind of prereading discussion is students' close attention to the words and how they might relate to one another and to the larger text that they represent. Students actively engage with meaning as they draw on background knowledge about words and concepts as well as on visual literacy skills.

The same bees word cloud could prompt a discussion after reading the article, guided by questions such as,

- Do you think the word cloud captured what was most important to learn?
- Are there keywords or ideas that are left out?
- What superordinate terms reflect the main ideas?

Figure 1
Word Cloud for Bees Using Wordle



As students manipulate the word cloud's layout, color, and font, they integrate verbal and visual representations, strengthening the multimedia learning effect (Fadel & Lemke, 2008) while developing an important digital literacy skill in our visual society.

For some students, the creative design aspect serves as the hook to engage them in meaning making; for others, it is the words themselves that entice them to explore meanings and relationships. Although Wordles can be published to the public gallery and printed, another option is to use a screen capture program to save the Wordle as an image, creating a bank of images on your desktop or school server. They can then be inserted into a document, PowerPoint, class blog, or other text.

WordSift (www.wordsift.com) is another free word cloud tool available on the Internet. Like Wordle, a word cloud is created based on text that is cut and pasted into the application. Although WordSift does not support artistic design of the display, it offers important learning supports. Each word can be clicked on to show a collection of related images, a word map, and a listing of sentences from the text that present the word in different contexts. WordSift also sorts words by difficulty and identifies academic words. Note that both Wordle and WordSift support several different languages, a feature particularly helpful to ELs (Adesope, Lavin, Thompson, & Ungerleider, 2010).

eVoc Strategy 2: Take a Digital Vocabulary Field Trip

In the original vocabulary field trip (Blachowicz & Obrochta, 2005), the teacher begins with a large poster of a topic, such as weather. Students are seated on the carpet, and the teacher leads a field trip that includes having students observe and record what they saw as they read books and other materials. As students volunteer weather words, the teacher records them on sticky notes or tag board and puts them up beside the poster. After the observations are concluded, the teacher returns the students' attention to

the words, repeating them and linking them to the poster. Next, students sort the weather words into conceptually related groups and engage in other semantic activities.

Teachers can create a digital version of a vocabulary field trip using a free online program called TrackStar (trackstar.4teachers.org). Like the popular WebQuest (Dodge, 1995), TrackStar allows you to collect a series of websites and annotate them so that students follow the online journey. Figure 2 shows a screenshot we created of a digital vocabulary field trip to explore weather vocabulary in the context of the Iditarod dogsled race.

On the left side of the figure you can see the questions and multiple websites that we selected to guide students in finding out about weather in Alaska, where the Iditarod takes place. We selected a context where weather is extreme to heighten students' interest and to provide a dramatic contrast to their own local weather. We begin with a website featuring photos and video of dogsledding in Alaska and asked students to respond with descriptions of the weather conditions.

Next, students visit a website on the aurora borealis and look for connections between the aurora and Alaskan weather. They complete the virtual field trip with a visit to a website on weather comparisons, where they examine the differences between local weather and Alaskan weather. Throughout this process, they visit several teacher-selected websites and gain knowledge about words through multiple exposures in different contexts and through different media, including reading, viewing, writing, and conversation.

eVoc Strategy 3: Connect Fun and Learning With Online Vocabulary Games

No list of technology applications for vocabulary would be complete without mention of the vocabulary games that are available for free on the Internet. We recommend two sites that offer a variety of activities to engage students in playing with words and word meanings: www.vocabulary.co.il and www.vocabulary.com. Games include crossword puzzles, picture-word matches, word scrambles, and 8 Letters in Search of a Word (a game that can draw you in unexpectedly as you race to create as many words as possible from eight letters within the time limit). The games are supplemented with themed word lists, test preparation items, and activities on prefixes and suffixes. These sites can be bookmarked for students' independent practice and can provide a basis for whole-group instruction.

Figure 2
Screenshot of Digital Vocabulary Field Trip Using TrackStar

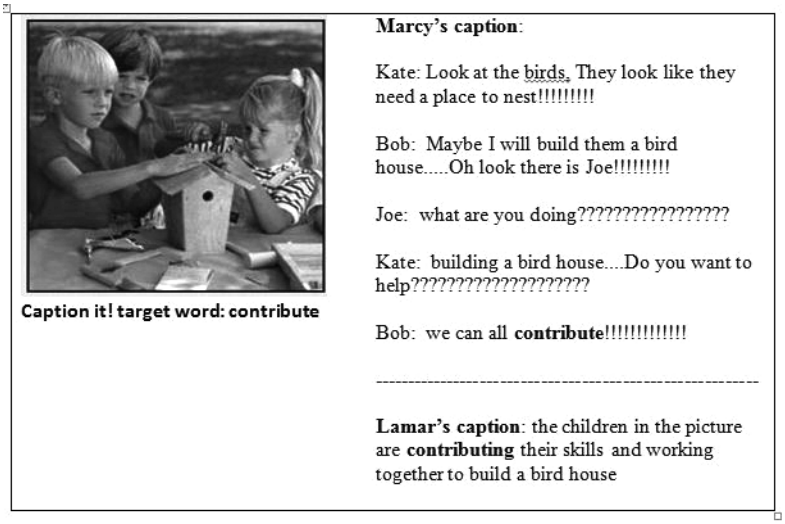
eVoc Strategy 4: Have Students Use Media to Express Vocabulary Knowledge

The previous eVoc strategies all require student interaction, from manipulating a visual word map to taking an online vocabulary field trip. This strategy focuses on students' vocabulary representations in multiple modes—writing, audio, graphic, video, and animation (Nikolova, 2002; Xin & Rieth, 2001). The first set of examples draws on promising research with universally designed digital text (Dalton & Proctor, 2007), suggesting the benefit of having students develop word meaning as they read a definition, view graphics, listen to the word, write or audiotape a personal connection to the word, create a caption for a graphic, and complete an interactive word map (Proctor et al., 2007; Proctor, Uccelli, Dalton, & Snow, 2009). Figure 3 illustrates how students communicate word knowledge as they create a caption for an image. These types of activities offer students different modes of representation and expression and can be created with a variety of composing tools and formats, such as digital stories, photo essays, podcasts, and so on.

A multimedia composing and presentation tool that is often underused is PowerPoint. We have certainly seen many poor PowerPoint examples (e.g., the ubiquitous three bullet points and silly clip art approach). However, we have found that PowerPoint can be used creatively for expression. In addition to benefiting from reading and viewing multimodal representations of vocabulary, recent research suggests that students may also benefit from creating multimedia representations of words in PowerPoint slides that are hyperlinked together (Pritchard & O'Hara, 2009). Working with fifth graders, Bridget (first author) created an example of a multimedia glossary item for *camouflage*, a word from the science curriculum (see Figure 4).

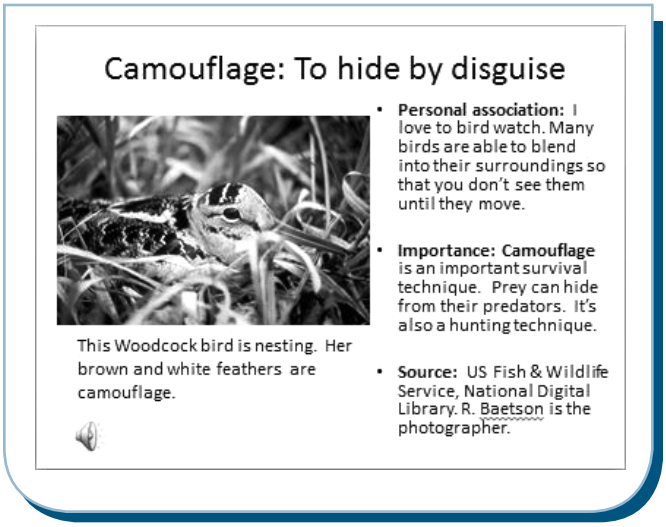
The model elaborates word knowledge in context and illustrates how design influences the message. To provide a structure to guide students in creating their own entries, Bridget created a template that students could fill in and adapt. The template includes a space for the word, a short definition, an explanation for why the word is important, a graphic, an audio recording or sound, and a source. As students create and revise their entries, they reflect on the word's meaning (What does this mean?), its representation

Figure 3
Students Create Captions to Illustrate Their Understanding of *Contribute*



Note. From Dalton, B., Proctor, C.P., Snow, C.E., Uccelli, P., & Mo, E. (2008, September). *Improving reading comprehension for struggling readers: Understanding the role of vocabulary development, guided strategy use, and Spanish language supports in a digital reading environment.* Final report to the U.S. Department of Education, Institute of Education Sciences.

Figure 4
Multimedia Glossary Example of *Camouflage* Using a PowerPoint Template



(How does this particular graphic and sound effect illustrate this word?) and process (What images did you consider and discard?).

Students' glossary items can be combined into a master document and sorted by word to show multiple meanings and representations (Pritchard & O'Hara, 2009). Another approach to compiling students' individual work is to teach them how to hyperlink their slides so that a view of one version of a word includes hyperlinks to others' versions of that word. Although this example uses PowerPoint as the media format, these types of vocabulary collections can be created in different modes and published online as a word wiki or word blog. This kind of collaborative publication and engagement with an external audience is characteristic of successful multimedia learning (Fadel & Lemke, 2008). There really is no end to the creative possibilities when students use media to develop and celebrate the wonder of words.

eVoc Strategy 5: Take Advantage of Online Word Reference Tools That Are Also Teaching Tools

Many online word reference tools are also excellent teaching resources. For example, the Visual Thesaurus website (www.visualthesaurus.com) complements its fee-based content with free information such as the Behind the Dictionary and Teachers at Work columns and teacher-created themed word lists. Many use multiple distribution platforms to reach learners wherever they are. For example, the Back in School webpage of Dictionary.com (dictionary.reference.com/studenthandbook) links to Facebook, has an iPhone application, a free toolbar application, a word of the day that is communicated on Twitter or as a text message on your mobile phone, and a free weekly word explorer audio podcast on iTunes.

Develop Strategic Digital Readers With "On-Demand" Vocabulary Help

This section highlights two online tools that provide just-in-time support while reading. Students can develop their strategic learning repertoire as they customize their own collection of supports.

eVoc Strategy 6: Support Reading and Word Learning With Just-in-Time Vocabulary Reference Support

Whether avid or reluctant reader, we all encounter unfamiliar words in our reading and need strategies for what to do when this occurs. Rather than using print dictionaries or asking the teacher, students can learn to use online dictionaries and thesauri. When they have access to word help on demand, at the point of need, both monolingual (Reinking & Rickman, 1990) and bilingual (Yoshii, 2006) students tend to use them more often than print references and improve their understanding. Many of these Internet-based tools are free (they vary in difficulty, so try out different applications to determine the best fit for your students).

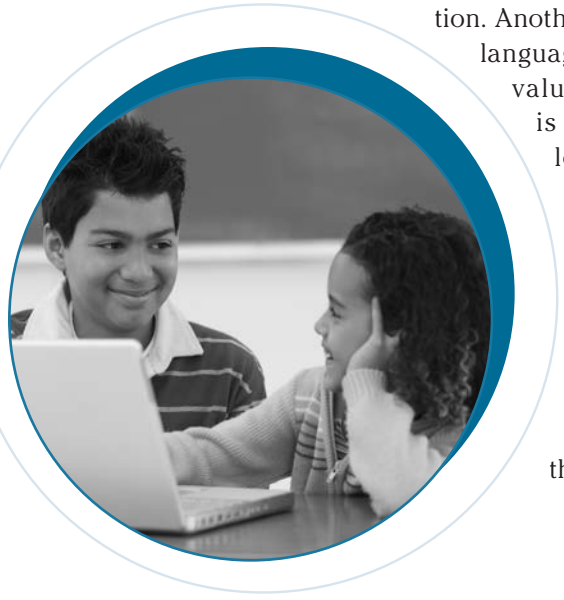
Some word reference tools can be mounted on the browser toolbar, allowing you to right click on any word to look it up and have a brief definition display (see www.thefreedictionary.com/add2ie.htm#addon for Internet Explorer and Mozilla). More comprehensive dictionaries can be bookmarked for easy access while reading on the computer. The increasingly popular e-book readers, which are becoming more common in schools and homes, usually provide dictionary help in the form of audio pronunciations of the word and brief definitions.

Two popular free online dictionaries/thesauri are dictionary.reference.com/ and www.merriam-webster.com. Tools expressly designed for students include Word Central from Merriam-Webster (www.wordcentral.com), Back in School from Dictionary.com, and Yahoo Kids! American Heritage Dictionary of the English Language (kids.yahoo.com/reference/dictionary/english).

A strength of digital text is its capacity to communicate in multiple modes, enhancing understanding by providing two channels of input, visual/spatial and linguistic (Mayer, 2001). Merriam-Webster offers an online visual dictionary (visual.merriam-webster.com/index.php), and Enchanted Learning provides a picture dictionary for young children (www.enchantedlearning.com). Be on the alert for educational sites that offer specialized picture glossaries, such as NASA's online space picture dictionary at www.nasa.gov/audience/forstudents/k-4/dictionary. These sites can be added to your browser favorites. And, finally, it is important to teach students to notice and strategically use the vocabulary help that is offered on various sites, such as the word wizard that pops up when students are reading Scholastic News Online (www2.scholastic.com).

eVoc Strategy 7: Use Language Translators to Provide Just-in-Time Help for ELs

Successful ELs leverage first-language knowledge to develop their English (Adesope et al., 2010; Jiménez, García, & Pearson, 1996). Online dictionaries often support multiple languages (e.g., the Yahoo! Kids dictionary supports 90 languages), and EL students should be taught to look for this option. Another resource is the language translator. The value of a translator is that it supports learning words as they occur naturally in authentic text and allows students to view bilingual versions of a text side by side so that they can use their first-language knowledge to develop their English vocabulary. You can paste text into the translator field, select the input and output languages, and view the translation (see Babelfish, babelfish.yahoo.com; Google translator, translate.google.com; and Bing Translator, www.microsofttranslator.com). You may also download a toolbar extension that translates any webpage automatically (translate.google.com/translate_buttons). Although these tools are not perfect (and may never be, given the nuances involved in translation), they are a good place to start for ELs. In fact, students often find the translator's mistakes both humorous and an entry point for discussing the nuances of word meanings.



Expand Wide Reading and Incidental Word Learning With Digital Text

Reading widely and deeply is important for vocabulary development and reading comprehension. These two strategies help increase students' volume of reading and, indirectly, their incidental word learning (Cunningham & Stanovich, 2001; Nagy & Herman, 1985).

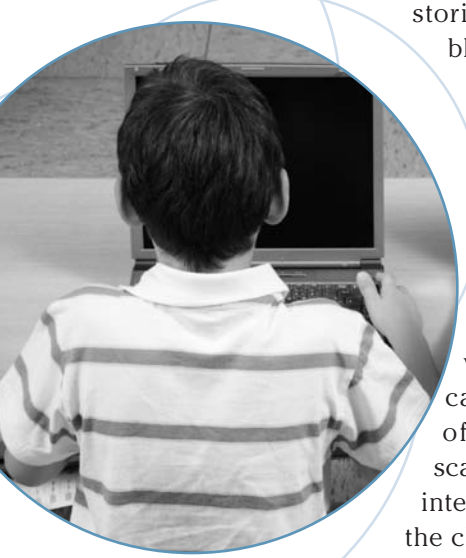
eVoc Strategy 8: Increase Reading Volume by Reading Digital Text

Class libraries, read-alouds, book clubs, and independent reading time during the school day can increase the amount and variety of student reading. However, it is challenging to find the resources and time required to provide up-to-date material, to be responsive to students' interests, and to accommodate readers at different reading levels. Teachers can dramatically expand text options for students by including reading on the Internet and other digital texts. A high percentage of students already use the Internet for homework; we can extend their learning and exploration of words in context as they read and view varied text genres on the Internet, or read texts downloaded onto a class computer, an e-book reading device, or a smartphone.

Increasing the reading of informational text is especially important for learning in the content areas, and informational content reigns supreme on the Internet. To use current events as one example, the currency of information and use of media to

communicate the news is unparalleled. To begin, we recommend bookmarking quality sites that students read on a regular basis. Many educational publishers and organizations provide free online content, including articles and media about current events, some of which are generated by students themselves. A few of our favorites include the following:

- Time for Kids (www.timeforkids.com/TFK/kids/news)
- Weekly Reader (www.weeklyreader.com/featurezone)
- National Geographic Kids (kids.nationalgeographic.com/kids)
- National Geographic Kids' blogs (kidsblogs.nationalgeographic.com/kidsnews)
- Science News for Kids (www.sciencenewsforkids.org)



A recent visit to some of our favorite sites included articles about the top stories in the news, a student blog about animal myths featured in the animated film *Fantastic Mr. Fox*, and an explanation of three-sided snowflakes. The texts include graphics, video, and sound, along with written text, providing many ways of engaging with the content. Students can rotate taking on the role of Internet news reporter, scanning bookmarked sites for interesting news to share with the class or post to a class blog. Students can also pursue individual interests as they read digital text during sustained silent reading.

A second example is based on literature students read in the classroom, generating interest in more reading by developing intertextual connections (Hartman, 1992). Using a digital poster or PowerPoint screen to show a splash of book cover images and screen captures of websites, movie trailers, and blogs invites students to pursue their interests in particular authors, books, genres, popular culture, and media.

For example, a screen displaying a book that the class is reading, such as Kate DiCamillo's *The Tale of Despereaux*, links to several screens, one featuring her website and online interviews, another to a site with video clips from *The Tale of Despereaux* movie, and still another highlighting other fantasy books and comics. The splash screens can be printed out to build a wall mural that students expand as they continue reading.

These examples highlight the value of teachers previewing Internet content. However, students will also need support in learning how to search and find their own reading materials on the Internet. This will necessitate teaching Internet safety, something that is now required to obtain E-Rate funding (Protecting Children in the 21st Century Act, 2009), as well as strategies for searching and evaluating Internet content (Henry, 2006).

eVoc Strategy 9: Increase Reading Volume by Listening to Digital Text With a Text-to-Speech Tool and Audio Books

A common concern among educators is the readability of websites and Internet content. One powerful strategy is to allow students to listen to text with a text-to-speech (TTS) tool or, when available, listen to audio narration. This provides students with access to age-appropriate content and grade-level curriculum, a right mandated by the Individuals with Disabilities Education Improvement Act of 2004. For struggling readers, TTS increases their reading speed, reduces stress, and for some, but not all, improves comprehension (Elkind & Elkind, 2007).

Fortunately, there are free TTS tools that can be mounted on the browser toolbar for easy access while reading, such as Click, Speak for Firefox (clickspeak.clcworld.net), or downloaded to your desktop, such as the NaturalReader free TTS utility (www.naturalreaders.com). Balabolka (www.cross-plus-a.com/balabolka.htm) is a PC-based TTS application that can run off a thumb drive. Some e-book readers such as Microsoft Reader are free to download and can be used with public domain content that is part of their e-book library.

There are also commercial TTS tools that range in price depending on the features, such as those

from Kurzweil, Aeques, TextHELP, and Recording for the Blind & Dyslexic (RFB&D). Note that students who have a documented print disability may obtain digital versions of core curriculum texts from organizations such as Bookshare (bookshare.org) and RFB&D (www.rfbd.org). To explore strategies for listening to text, check out the Learning Through Listening website (www.learningthroughlistening.org). Johnson (2003) also offered suggestions for using audiobooks in the classroom in her *Reading Online* article, "Audiobooks: Ear-resistible!"

eVoc Strategy 10: Combine Vocabulary Learning and Social Service

Many of these eVoc strategies use Web 2.0 technologies to promote social learning. They also tap into students' natural desire to create, to participate in communities, and to develop strategic competence. Recent reports on students' digital literacies highlight the importance of this kind of learning (Ito et al., 2010). This final eVoc strategy is a free online vocabulary game, Free Rice (www.freerice.com) that has attracted millions of users, young and old. We believe it offers an opportunity to promote students' engagement with words while contributing to the social good.

Free Rice presents a word and four answer choices on the screen. For each correct answer, the United Nations World Food Programme donates 10 grains of rice to countries in need. The game adjusts its difficulty level based on the response, filling a bowl with rice as the player adds to his or her score. As a class activity, the teacher could project the website on screen and guide students in playing the game for 5 minutes daily, discussing choices (e.g., "I think it must be 'x' because 'y'") and strategies (e.g., "Any words we can eliminate? Does the root word give us a clue we can use?"). Students can play individually or with a partner, reporting back to class on their rice earnings and sharing intriguing new words.

In closing, we invite you to go digital with word learning. These 10 eVoc strategies use technology to support the wide reading, direct instruction, active learning, and interest in words that we know are essential to vocabulary development. In a digital world, knowing how to use the tools and resources available online is part of becoming a strategic learner. We hope that this list provides a useful and *evocative* jumping-off point for integrating technology and media into your students' vocabulary learning experience.

Take ACTION!

1. Analyze your current vocabulary instruction and the needs of your students. What current low-tech tasks might be replaced or enhanced with an eVoc strategy that uses multimedia? Are there gaps in your students' vocabulary learning skills that can be supported with a digital tool?

2. Survey the available technology in your classroom and the school. Is your school wired or wireless? Where is there access to the Internet? What is the number of connections for students? Are there filters and safety protocols? What kinds of software and online tools will need to be installed? Who is your technology resource person?

3. Choose an eVoc strategy that is consistent with your instruction and available classroom technology and try it out yourself. Play with the possibilities and explore the websites. Save your work to use as examples for your students.

4. Try the eVoc strategy with your students. Remember that students may be comfortable with technology but need assistance with using it for academic purposes. Be sure to include time for sharing students' new knowledge about words, strategies for using digital tools and media, and most important, their creative products. Observe your students, assess their learning, and revise lessons as needed. Your students will also have interesting multimedia project ideas and useful digital tools to share.

5. View your integration of technology and vocabulary as an opportunity for exploration and inquiry. Where do you see impact on students' learning and engagement? How might you share what you are learning with other teachers? Do not forget how much fun words can be, especially when *evoked* in a digital context!

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- "Using Word Webs to Teach Synonyms for Commonly Used Words" by Angela Lanier

IRA Books

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- *Teaching Individual Words: One Size Does Not Fit All* by Michael F. Graves

IRA Journal Articles

- "A Vocabulary Flood: Making Words 'Sticky' With Computer-Response Activities" by Linda D. Labbo, Mary S. Love, and Tammy Ryan, *The Reading Teacher*, March 2007
- "Vocabulary Visits: Virtual Field Trips for Content Vocabulary Development" by Camille L.Z. Blachowicz and Connie Obrochta, *The Reading Teacher*, November 2005