

## Teaching Vocabulary Using Technology

### Overview

When considering ways to integrate technology during vocabulary instruction, it is important to remember that there are best practices that have been established from decades of literacy research. Just because technology is available for your use does not mean that you should deviate from those methods. Also, you should not feel limited to use technology in only one stage of the teaching process:<sup>1</sup>

- **Teachers should explicitly teach words that are required for an instructional unit *prior to instruction***, i.e. photosynthesis, mutually assured destruction, alliteration, quadratic equations, crescendos, the fourth wall, etc.
- **Teachers should provide students with multiple exposures to new vocabulary in multiple contexts.** This means that students should not only have drilled instruction, but that they should encounter the words while reading for class, while listening to presentations, or while reading independently.
- **Teachers should use multiple strategies for teaching vocabulary and promote active engagement with vocabulary.** Novelty is important for a classroom, so do not rely solely on one instructional method—mix it up! Also, students should be *doing something with* the vocabulary, like using it during their writing assignments or presentations.
- **Teachers should model the vocabulary often as a mature language user.** If you expect your students to learn and use these words, make sure your own speech incorporates them on a regular basis.
- **Teachers should provide students with opportunities to learn vocabulary “incidentally.”** Much vocabulary acquisition comes simply by reading and being taught reading strategies. Provide students with opportunities to read in class and encourage them to read at home. Using guided and/or group read-alouds also helps to build these skills.
- **Teachers should present vocabulary with both definitions *and* contexts.** Simple definitional knowledge is not enough to ensure vocabulary acquisition; students also need to learn how a word functions, a word’s relationship to other words, and a word’s role in different contexts to develop “knowledge” of the word.
- **Teachers can (and should) use computer technology to help teach vocabulary instruction.** However, few specific instructional applications exist in current research. It is better to think of technology as a supplement to instruction, and also as a novel way of interacting with the material. Simply using Kahoot! quizzes or flash cards will not guarantee vocabulary acquisition.

In addition to these considerations, there are a variety of specific instructional strategies that exist for helping students learn new words. They are listed on the next page. Many of these strategies will work for At-Risk students and English Language Learners, but not all of them. Remember that differentiated instruction is an important part of teaching generally, and it is especially important when teaching vocabulary at *all* grade levels in *all* content areas:

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<sup>1</sup> This information was synthesized from a variety of resources, but primarily derives from the work of the National Reading Technical Assistance Center. For further information, please consult the References section at the end of this document.

Common theoretical approaches to teaching vocabulary:

- Affixes
- Cognates
- Idioms and figurative speech
- Multiple meanings (semantics)
- Synonyms and antonyms
- Word Families

Common steps used during vocabulary instruction:<sup>2</sup>

1. Select words to be taught.
2. Rank the words into difficulty tiers: tier 1 words are common words without instructional focus; tier 2 words are cross-disciplinary, high frequency words used in academic settings; tier 3 words are discipline specific and often low-frequency words.
3. Explain a new word, including multiple contexts, and access prior learning
4. Students restate or explain the new word in their own words (verbal and/or written)
5. Students create a non-linguistic representation of the word
6. Students engage in some activity that will deepen their understanding of the word
7. Students discuss the new word
8. Students play games to review the new word

Common activities used to teach vocabulary:<sup>3</sup>

- Acting out words
- Analogies, similes, metaphors
- Classifying words (part of speech, meaning, pronunciation, endings, root, emotion, etc.)
- Concept mapping
- Dictionary & Thesaurus Instruction
- Etymological and/or root/affix analysis
- Feature analysis
- Mnemonic devices
- Morphemic analysis
- Predicting meanings
- Read alouds
- Using visual imagery
- Word clouds
- Word mapping (can be used semantically or structurally)
- Word walls
- Word webs

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<sup>2</sup> This information comes from Edutopia.org and is inspired by Rober Marzano's six step plan to teach vocabulary in content area classrooms.

<sup>3</sup> This information was synthesized from a variety of resources, but it is taken primarily from the Massachusetts Reading Association, an affiliate of the International Literacy Association. For additional information, please consult the references section at the end of this document.

With these ideas and strategies in mind, let's take a look at some of the tools that are available to teachers. Think about how these tools can be used at different stages of the vocabulary acquisition process, or how they can substitute for traditional instructional methods.

*Note:* Not all aspects of vocabulary instruction are covered in this document. The amount of resources available is vast, so independent research is recommended. Consider this list a starting point that is by no means exhaustive.

## **Quizzes**

Kahoot! – Let's get this one out of the way first. Kahoot! Is a digital, group-based, formative assessment that uses competition to encourage student participation. It is commonly used throughout K12 classrooms and is well-known by most teacher candidates. While it is a great tool, we encourage teachers to try different tools to avoid redundancy.

Quizizz – Similar to Kahoot!, Quizizz is a group-based formative assessment (one could even say it's a knock-off). It is still a great tool that can foster student engagement, but we encourage teachers to try some of the other tools listed in this document.

Socrative – Like Kahoot! And Quizizz, Socrative is a group-based formative assessment. Adapting it for vocabulary instruction is a viable option, but it is also one of the simplest solutions. Keep browsing!

Free Rice – If you want to give students an opportunity to improve their vocabulary, or test their current vocabulary, send them over to Free Rice! Free Rice is run by the United Nations, and whenever students get a vocabulary word correct, 10 grains of rice are donated to countries with food shortages. Over time, students can learn new concepts and help those who are less fortunate at the same time.

## **Reference Tools**

Lingro – Lingro is a great add-on that students can use to expand their vocabulary at any time. This tool is particularly useful in a one:one classroom where the teacher distributes learning material digitally. Students can right-click on any word in their internet browser while Lingro is running, and the program will provide them with a definition for that word! Awesome!

Lexipedia – Lexipedia is a database where students can research the relationships between words. Information provided includes part of speech, synonyms, antonyms, and "fuzzynyms" (words that have slightly similar meanings) and the program creates a graphical representation of the word.

Shahi – Shahi is "a visual dictionary the combines Wiktionary content, Flickr images, and more." It is essentially a visual dictionary that provides users with a variety of images for each word they are researching, along with multiple definitions. Great of English Language Learners.

Snappy Words – Snappy Words is a visual dictionary/thesaurus that uses concept mapping and responsive design to connect the semantic, functional, and structural aspects of a word to other words.

Word Hippo – Word Hippo is a basic thesaurus that includes antonyms, but it's got a word hippo, so it's really cool and fun. The actual content is good, and the search bars ask, "What's another word for..." or "What's the opposite of..."

Wordnik – Wordnik appears like a normal online dictionary/thesaurus at first, but the variety of results (images, sounds, and even news stories/social media posts that include the word being searched) makes it a tool one can get lost in for hours.

### **Word Clouds and Textual Analysis Tools**

Wordle – Students can type or copy & paste text into the Wordle app, and the program will generate a word cloud that shows the frequency of words in the document, the sizes of the words corresponding to how often they appear. It can be very useful at multiple stages of the vocabulary acquisition process, and it can be used at the beginning of a unit to identify words that may cause inexperienced readers comprehension issues.

WordSift – WordSift.org is similar to Wordle, but the company has taken word clouds a step further and added more complex visual representations, image results, and context tools to help students further understand a word’s semantic and functional meaning.

Voyant Tools – For advanced Word Cloud users, Voyant Tools offers a variety of digital humanities tools (including word clouds) to help visually represent textual data. This one can get pretty detailed, so only use it at higher levels and with students who have technical aptitude.

### **Games and Reviews**

Flashcard Stash – Flashcard Stash is a flashcard program that is built on top of a dictionary database. Teachers can use it to create flashcards quickly from dictionary definitions, or can access previously created flashcard sets on a variety of topics including SAT vocabulary, content area vocabulary, and more.

Quizlet – Quizlet is a great service that provides students with the ability to create notecards on any subject they wish. There are also databases that include previously created notecards made by other students (some of them are even linked by teacher name!).

StudyBlue – Like the previous two options, StudyBlue is an online flashcard service. Students can search by subject or teacher, or they can create their own sets of study materials.

Vocabulary.co.il – This website compiles a variety of vocabulary games into one place. Browse through the page and see what games you might be able to use. You can also use it as a research portal. For example, I notice there are a lot of matching games. I could now go to Google and search for Vocabulary Matching games.

Jeopardy Labs – Jeopardy Labs provides you with a Jeopardy template that can be filled in using whatever content you desire. Create vocabulary reviews that are fun and competitive for free!

QUIA – While QUIA is a paid service, it is worth mentioning for its activity creation. There are 15 different types of activities that teachers can create through QUIA, and you can sign up for a 30 day free trial (no credit card required) to see if the service is valuable enough to justify your department’s subscription.

## **Word Walls**

Padlet – Padlet is an interactive bulletin board where students can post multimodal sticky notes together in a collaborative environment. Padlet can be used effectively for Word Walls and concept mapping activities where students can associate a new word with prior knowledge, other words, images, sounds, videos, etc.

Linoit – A similar program to Padlet, Linoit is also a multimodal, collaborative environment.

## **Graphic Organizers**

Bubbl.us – Bubbl.us is a graphic organizer program that is intuitive (and free). Students can create and share their “mind maps” with their teacher or their peers. A downside is that for students to collaborate on the same map in real time, it costs 4.91 per month. But free subscriptions offer 3 maps that can be shared as view only, so it’s not entirely prohibitive for the industrious teacher.

Popplet – Another graphic organizer program, Popplet’s advantage is that there is both an online version and an iPad app. Schools that make use of iPads for instruction will find it valuable and intuitive.

## **Whiteboards**

AWW App – AWW App is a virtual whiteboard where your students can draw or write about vocabulary words. Really, any vocabulary activities that you can use with a whiteboard can be transferred over to the AWW App. Pictionary, anyone?

SMART Software – SMART Notebook and other products include a variety of pre-built and template-based lessons and games that can be utilized in teaching vocabulary. If your school has a license, browse through their databases and see if any fit your goals.

## **Other Games**

ESLGames+ - <https://www.eslgamesplus.com/> is a great resource for teaching vocabulary with all students, but is especially geared toward English Second Language learners. There are various matching and concentration games that cover grades K-8.

## **Final Considerations**

Anything that you currently use or have seen in use for vocabulary instruction can (theoretically) be used in a digital environment. The only limitations you will experience are your imagination and the current state of technology. For instance, many people like to use Bingo (Wordo) to review vocabulary. There are currently no vocabulary bingo templates that we can locate that are worth the teacher’s effort to create; however, that doesn’t mean that there won’t be one soon, or that you can’t create one!

## References

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