

Vocabulary Development using Visual Displays

Visual displays can support vocabulary development in unique and creative ways.

Ellen McKenzie

Vocabulary development is one of the top areas of focus for a child to learn to read and a central goal for primary grade students (Christ & Wang, 2010; National Research Council, 1998; Neuman, Dwyer, & Neuman, 2008). Because learning is so dependent on language, success in school is essentially dependent on knowledge of words (Coyle, Simmons, & Kame'enui, 2004). Furthermore, it is widely documented and generally accepted that school success is linked to vocabulary knowledge (Anderson & Nagy, 1991; Becker, 1977; Christ & Wang, 2010; Neuman, Dwyer, & Neuman, 2008). However, children enter kindergarten with varying levels of skills, dispositions, talents and needs. Some kindergarteners begin school with substantial differences in vocabulary understanding and knowledge (Christ & Wang, 2010; Hart & Risley, 1995; Newton, Padak & Rasinski, 2008).

Read-alouds expose children to a multitude of new words.

Kindergarten teachers use a variety of strategies that focus on vocabulary development. A common and effective practice to introduce new vocabulary to kindergarteners is reading storybooks to children, what is commonly known as “read-alouds” (Bus, van Ijzendoorn, & Pelligrini, 1995; Christ & Wang, 2010; Newton, Padak & Rasinski, 2008). Listening to books read out loud exposes children to a multitude of new words. Children’s literature has a collective abundance of complex language and rare words (Wooten & Cullinan, 2009) equal to more than those encountered in an average adult conversation or on prime time television (Cunningham

& Stanovich, 1998). Read-alouds introduce children to new words in meaningful contexts that make sense in their world. Not only do children’s books contain advanced vocabulary, the illustrations give visual context clues that aid in understanding (Christ & Wang, 2010; The Urban Child Institute, 2010).

Vocabulary development is a central goal of the Common Core State Standards (CCSS), adopted by 45 of the United States in 2012. The CCSS detail specific outcomes for vocabulary learning. The National Governors Association Center for Best Practices (2010) detailed the following kindergarten “Common Core Standards for Vocabulary Acquisition and Use”, which include goals for students to:

...determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content; identify new meanings for familiar words and apply them accurately; use the most frequently occurring inflections and affixes as a clue to the meaning of an unknown word; explore word relationships and nuances in word meanings; demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites; identify real-life connections between words and their use; distinguish shades of meaning among verbs describing the same general action; and, use words and phrases acquired through conversations, reading and being read to, and responding to texts. (p. 2)

Learning new words through hands-on, engaging, and interactive playful learning is one way to start bridging the achievement gap, meet the CCSS and respect and honor the child’s right to learn in an environment that is appropriate to his or her developmental level. It is important for teachers of young children to find engaging, creative and developmentally appropriate ways to meet the rigorous standards such as the use of graphic organizers after completing read-alouds in the kindergarten classroom.

Table 1

Graphic Organizer Name	Description of Graphic Organizer
Frayer Model	A four square model in which students and teachers define the word, list its characteristics, and give examples and non-examples of the target word (Graves, 2006).
Venn Diagram	Overlapping circles are used to describe relationships between concepts (TeacherVision, 2013).
Word Maps	Visual organizers that provide a space for a picture, definition, synonyms, and antonyms (Jones, 2007).
Vocab-o-gram	Words from a story are used to make predictions about the setting, characters, plot and resolution, helping build vocabulary knowledge (Blachowicz & Fisher, 2006; Newton, Padak & Rasinski, 2008).

Graphic Organizers

Research indicates that using graphic organizers for new vocabulary words is an effective way to promote understanding (Rakes, Rakes & Smith, 1995; Newton, Padak & Rasinski, 2008). Though typically used by older students, teachers are finding that kindergarten students are benefitting from using graphic organizers to reinforce vocabulary skills. In this article, examples of effective graphic organizers that can be used with kindergarten children are listed on *Table 1*.

Visualizing Words

The teacher in whole and small group settings can best model the

graphic organizers stated in *Table 1* as visual representations. Eventually, as the children gain more experience, the graphic organizers may be completed in pairs or small group settings. These visual vocabulary strategies are useful for increasing word recognition and understanding and maybe a good way to promote vocabulary development in English for English language learners (Newton, Padak & Rasinski, 2008).

Prior to Reading: Setting the Stage

It is best practice to select words on which to focus during the read-aloud prior to the reading. Texts should be chosen that include Tier

Two words – words that occur frequently across texts, domains and whose meaning the students probably do not already know are essential for comprehension (Beck, McKeown, & Kucan, 2002; Newton, Padak & Rasinski, 2008). Words should also be chosen based on student interest and opportunities for numerous exposures to the word in multiple contexts (Beck, McKeown, & Kucan, 2002).

In order for students to learn and remember new words, teachers must activate prior knowledge. Teachers must spend time building the child’s schema so that he or she can connect the new word to existing understandings (Christ & Wang, 2010; Newton, Padak & Rasinski, 2008).

As seen in *Figure 1* (following page), prior to the reading, the teacher selected the word celebration as a target vocabulary word. As seen in the photo, students brainstormed the meaning of the word celebration, and wrote and drew their thoughts about the meaning of the word on sticky notes. Once the students had finished and posted them to the poster, the teacher sorted and classified them with the students. The majority of the students thought celebration was some sort of party, while others thought of holidays

Strategies to Build Prior Knowledge

- After selecting the words from the story, effective teachers introduce the new vocabulary to students without defining the words.
- Writing the selected words on the board, sticky notes, word cards, graphic organizers, and word walls stimulates interest in the words and builds anticipation.
- Passing out word cards prior to reading is an effective way to encourage participation. This affords students the opportunity to hold up their words when they are heard in the text and maintains interest in the book and in the vocabulary.
- Taking a picture walk of the book to look for clues about the word’s meaning prior to reading is a good strategy for building understanding. Teachers can encourage students to discuss, draw, write, or visualize what they think the words will mean. Having students predict word meanings and draw or write them on sticky notes is a good practice for engaging students with vocabulary words.

Figure 1: Brainstorming meanings with students



such as Christmas and Thanksgiving. Several students drew images of Mardi Gras and parades, which are particularly interesting since these students live in the New Orleans area, and the vocabulary activity occurred during Mardi Gras season. A few others drew and named fireworks as a part of a celebration. The students and teacher grouped the words by similar characteristic and meanings. Drawing from the knowledge base of the child while building a definition together allows teachers to incorporate the child's cultural background in the meaning-making process. When students have opportunities to interact with their teachers and the text, vocabulary instruction is more meaningful and beneficial (Christ & Wang, 2010; Copple & Bredekemp, 2009; Coyne, McCoach, & Kapp, 2007).

During Reading: Building Understanding

During read-alouds, there are many effective ways to encourage students to learn new words from storybooks. Best practices include labeling items in the book orally, naming objects seen in the illustrations, stopping to ask questions, elaborating on student responses (Kindle,

2009; Newton, Padak & Rasinski, 2008), and modeling "think alouds" during reading (The Urban Child Institute, 2010). When teachers orally question themselves and the texts to find meaning and act out their own thinking processes, students are given a scaffold for learning cognition and comprehension. Students make the highest gains in vocabulary knowledge when teachers utilize interactive approaches (Copple & Bredekemp, 2009; Leong, 2008).

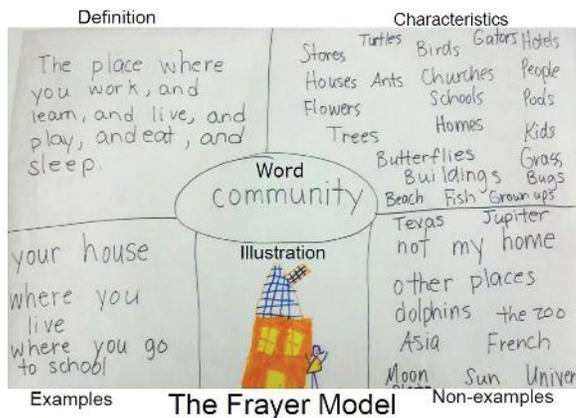
Knowledgeable teachers understand the value of giving students intentional exposure to new vocabulary. Upon encountering the new word, effective early childhood teachers ask eliciting type questions to focus the child's thinking on word meaning. In this way, definitions are drawn from and constructed with the children as opposed to simply exposing them to the new words within the context of the book (Newton, Padak & Rasinski, 2008; The Urban Child Institute, 2010). When reading aloud, using embedded definitions in which the meaning of the word is clear and obvious in the natural context of the story is beneficial to the student (Christ & Wang, 2010; The Urban Child Institute, 2010). Researchers have found that using this type of contextual

vocabulary instruction yields higher gains in vocabulary than lessons with provided definitions (Nash & Snowling, 2006). Further, research indicates that students have higher gains in language when exposed to sophisticated language through read-alouds, have repeated contact with the words, and are given opportunities to talk about the vocabulary (Beck & McKeown, 2007; Newton, Padak & Rasinski, 2008). Repeated readings of the same storybook result in higher gains in student vocabulary (Biemiller & Boote, 2006).

When teachers ask students questions about the details, pictures, and clues, they help scaffold children's understanding. Students make greater gains in vocabulary when teachers scaffold questions, beginning with low-demand questions and working towards more demanding questions (Blewitt, Rump, Shealy, & Cook, 2009). Effective teachers stop during reading and have students discuss what the word means with a partner. This allows teachers to check predictions with the students and supports the child's attempts to build understanding and meaning. While reading, it is important to point out the target words in the text. Students can be directed to discover how the surrounding text and illustrations support the meaning of the new words. Guiding students to vocabulary understanding through acting, singing, and drawing offers students multiple modalities for learning.

Pictured in *Figure 2*, the teacher selected the word *community* as a focus for vocabulary instruction based on words in the piece of literature she was reading. The students worked through the definition with their teacher and, together, they constructed the meaning and recorded answers on a Frayer Model with their

Figure 2: Frayer Model completed with students



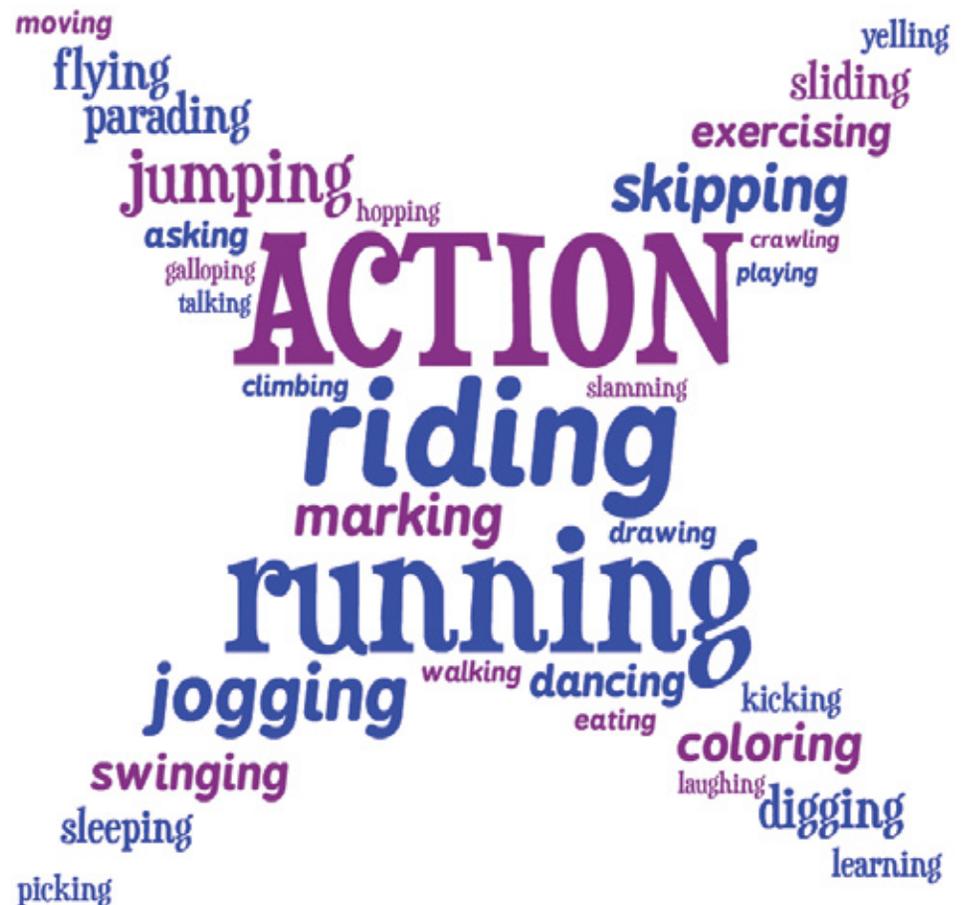
teacher’s support. As students offered answers, they were written on the chart paper in appropriate headings of: definition, examples, non-examples, and characteristics. A student was selected to complete the illustration section. Once kindergarten students are accustomed to the format, it can be an excellent model to use for small group and partner work.

After Reading: Reinforcing New Vocabulary

After reading the storybook, teachers are able to reinforce vocabulary in a variety of ways. Intentionally using the word throughout the natural course of the day in the classroom context is an excellent strategy for repeated exposure to new words. Finding opportunities to weave the words into the child’s world promotes word use and learning (Christ & Wang, 2010; Newton, Padak & Rasinski, 2008; The Urban Child Institute, 2010). When students have opportunities to hear and use new words in multiple contexts throughout the day, students are more likely to learn and incorporate new words into their vocabulary (Christ & Wang, 2010; Copple & Bredekemp, 2009; Stahl, 2005). Checking for understanding and matching

pictures to the written words gives the child a visual representation to store in his or her schema. Teachers should also provide scaffolding, materials and opportunities for children to retell stories, thereby offering children chances to use the new vocabulary in the context of the book.

Figure 3: Word Cloud using Tagul



Following a read-aloud, teachers find success with reinforcing vocabulary words using Word Maps (Jones, 2007; Newton, Padak & Rasinski, 2008). After an interactive read-aloud, students brainstormed numerous meanings for the word *action* as their teacher typed their responses into a Word Cloud using the website Tagul.com, as displayed in Figure 3.

Incorporating Multimedia Exposure

Studies show that children who hear target vocabulary words through varied multimedia sources are more likely to remember and use them (Christ & Wang, 2010). Teachers can enhance exposure to words through books on tape, DVDs, stories recorded on iPods, and literature websites on the Internet. Resources such as these are often

very motivating venues for children to interact with new words. Applications for iPods, iPads and tablets further motivate and reinforce new vocabulary. Students entering kindergarten are highly versed in touch screen technology and tablet applications, given the high incidence of and exposure to these devices in the daily lives of today's children. Early childhood teachers can help students create a slideshow for iPads and iPods using such applications. As displayed in *Figure 4*, students took photographs of items to represent the word *spiky*, and then used thought bubbles to describe the word using the application Comic Touch. The result was an eleven-page slideshow of the target vocabulary word. The activity was engaging and motivating for the students and a great way to incorporate familiar technology in a meaningful and educational way.

Figure 4: Student generated slide using Comic Touch



for vocabulary development include literacy stations, learning centers, free choice time, outdoor play in the playground, lunch and snack times, circle time, or at any time of the day where children have opportunity to interact with others. Interactions such as these grant teachers many avenues to meet the CCSS for vocabulary development in developmentally appropriate ways (Copple & Bredekemp, 2009).

A key factor in children using newly learned vocabulary words is being in classroom environments that encourage active discussions among students and between students and teachers. By incorporating vocabulary learning with the use of children's literature, reinforcing word use through conversations, multimedia applications, play and scaffolding the child's word learning and use, teachers can make strides in reducing the achievement gap in early literacy skills. This will not happen in a quiet, worksheet based classroom, but rather in engaged, lively, experiential environments where teachers help children activate prior knowledge and build new understanding from existing schema (such as when using different graphic organizers).

Recommendations and Conclusion

In order to facilitate growth in vocabulary knowledge, several recommendations would prove beneficial to teachers, children and families.

- It is recommended that state and local school districts provide teacher workshops and training in vocabulary development, the use of graphic organizers with the young child, and current technologies such as tablets, iPods, iPads, and their applications for early learning.
- It is also suggested that reading specialists and coaches work with early childhood teachers to develop interventions to address vocabulary needs.
- It is also recommended that visual displays and graphic organizers, such as concept mapping and flow charts, be incorporated and creatively used to encourage word understanding in kindergarten math, science, and social studies.
- Furthermore, community outreach programs with information on the importance of language to the young child's development should be offered to educate

Graphic organizers are effective for promoting understanding.

Closing the Gap

Children in classrooms where there is repeated exposure to and use of texts have opportunities to use new words in the context of their work and play. Teachers can advance this through the use of graphic organizers as shown in the examples above, particularly when focusing on vocabulary development. Other classroom strategies that are helpful

adults who are central to the child's life. Educators, education students and volunteers in these programs will need to be sensitive to the cultural and socio-economic backgrounds of the families involved. These programs should incorporate modeling and practical, hands-on activities to encourage speaking, and listening to young children.

As early childhood educators, we must work to create developmentally appropriate opportunities for children and one clear way is to use interactive and engaging strategies to develop vocabulary knowledge in young children. In doing so, we can work to create an equitable learning environment for our nation's children.

References

Anderson, R. & Nagy, W. E. (1991). Word meanings. In R. Barr, M. L. Kamil, P. B. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research* (Vol. 2, pp. 690-724). Hillsdale, NJ: Lawrence Erlbaum.

Beck, I., McKeown, M., & Kucan, L. (2002). *Bringing words to life: Robust vocabulary instruction*. New York, NY: Guilford Press.

Beck, I., & McKeown, M. (2007). Increasing young low-income children's oral vocabulary repertoires through rich and focused instruction. *The Elementary School Journal*, 107(3), 251-271.

Becker, W. (1977). Teaching reading and language to the disadvantaged: What we have learned from field research. *Harvard Educational Review*, 47, 518-543.

Biemiller, A. & Boote, C. (2006). An effective method for building meaning vocabulary in primary grades. *Journal of Educational Psychology*, 98(1), 44-62.

Blachowicz, C., Fisher, P., Ogle, D., & Watts-Taffe, S. (2006). Vocabulary: Questions from the classroom. *Reading Research Quarterly*, 41(4), 524-539.

Blewitt, P., Rump, K., Shealy, S., & Cook, S. (2009). Shared book reading: When and how questions affect young children's word learning. *Journal of Educational Psychology*, 101(2), 294-304.

Bus, A., van Ijzendoorn, M., & Pelligrini, A. (1995). Joint book reading makes for success in learning to read: A meta-analysis on intergenerational transmission of literacy. *Review of Educational Research*, 65, 1-21.

Christ, T., & Wang, X. (2010). Bridging the vocabulary gap: What the research tells us about vocabulary instruction in early childhood. *Young*

Children, 65(4), 84-91.

Comic Touch. (2009). Retrieved on February 12, 2013 from <http://plaspq.com/products/comictouch>

Copple, C., & Bredekamp, S. (2009). Developmentally appropriate practice in early childhood programs serving children birth through age 8 (Third ed.). Washington, DC: NAEYC.

Coyne, M., Simmons, D., and Kame'enui, E. (2004). Vocabulary instruction for young children at risk of experiencing reading difficulties. In *Vocabulary instruction: Research to practice*, eds. J. Bauman & E. Kame'enui, 41-58. New York, NY: Guilford.

Coyne, M., McCoach, D. & Kapp, S. (2007). Vocabulary intervention for kindergarten students: Comparing extended instruction to embedded instruction and incidental exposure. *Learning Disability Quarterly*, 30(2), 74-88.

Cunningham, A., & Stanovich, K. (1998). What reading does for the mind. *American Educator*, 22(1 & 2), 8-15.

Graves, M. (2006). *The vocabulary book: Learning and instruction*. New York, NY: Teachers College Press.

Hart, B., & Risley, R. T. (1995). *Meaningful differences in the everyday experience of young American children*. Baltimore: Paul H. Brookes.

Jones, R. (2007). *Strategies for reading comprehension: Vocabulary word maps*. Retrieved January, 24, 2013 from <http://www.readingquest.org/strat/wordmap.html>

Kindle, K.J. (2009). Vocabulary development during read-alouds: Primary practices. *The Reading Teacher*, 63(3), 202-211.

Leong, C. (2008). Preschoolers' acquisition of scientific vocabulary through repeated read-alouds, retellings, and hands-on science activities. *Reading Psychology*, 29(2), 165-193.

Nash, H. & Snowling, M. (2006). Teaching new words to children with poor existing vocabulary knowledge: A controlled evaluation of the definition and context methods. *International Journal of Language and Communication Disorders*, 41(3), 335-354.

National Governors Association Center for Best Practices, Council of Chief State School Officers. (2010). *Common Core State Standards*. National Governors Association Center for Best Practices, Council of Chief State School Officers, Washington D.C.

National Research Council (1998). *Preventing reading difficulties in young children*. Washington, DC: National Academy Press.

Neuman, S., Dwyer, J., & Neuman, E. (2008). *Developing vocabulary and conceptual knowledge for low-income preschoolers: An intervention study*. Ann Arbor, MI: University of Michigan.

Newton, E., Padak, N., & Rasinski, T. (2008). *Evidence-based instruction in reading: A professional development guide to vocabulary*. New York, NY: Pearson.

Rakes, G., Rakes, T., & Smith, L. (1995). Using visuals to enhance secondary students' reading comprehension of expository texts. *Journal of Adolescent and Adult Literacy*, 39, 46-54.

Reading Educator. (2013) Frayer model. Reading Educator. Retrieved on December 30, 2013 from

<http://www.readingeducator.com/strategies/frayer.htm>

Stahl, S. (2005). Four problems with teaching word meanings (and what to do to make vocabulary an integral part of instruction). In E.H.Hiebert and M.L. Kamil (Eds.), *Teaching and learning vocabulary: Bringing research to practice* (pp. 95-114). Mahwa, NJ: Lawrence Erlbaum.

Tagul. (2013). Retrieved on January 22, 2013 from <http://tagul.com/>

TeacherVision. (2013). *John Venn*. Retrieved on July 21, 2013 from <http://www.teachervision.fen.com/mathematicians/biography/6132.html>

The Urban Child Institute (2010). *Strengthening early vocabulary helps to reduce the achievement gap between poor and middle-income children*. Retrieved on December 16, 2012 from <http://www.urbanchildinstitute.org/articles/updates/strengthening-early-vocabulary-helps-to-reduce-the-achievement-gap-between-poor-and>

Wooten, D., & Cullinan, B. (2009). *Children's literature in the reading program: An invitation to read*. Newark, DE: International Reading Association.

About the Authors

Ellen McKenzie is a writer, researcher, peer reviewer, and early childhood educator. She has been published in several journals on topics related to developmentally appropriate practice, National Board certification, literacy, and educational policy. Dr. McKenzie also practices as a kindergarten teacher, allowing her to temper her research and university-level teaching at the University of New Orleans with everyday classroom trends and practices. Also central to her research aims are best practices for culturally appropriate education, school reform in her home of New Orleans, and play-based learning in early childhood education.