**Move It or Lose it!**

*Linnea Lyding, Debby Zambo and Cory Cooper Hansen*

**Integrating motions into vocabulary work helps words stick–and heightens students' enjoyment.**

One way Mrs. Johnson helps her 3rd graders develop a deep understanding of scientific terms is by adding physical movement into her vocabulary instruction.[1](http://www.ascd.org/publications/educational-leadership/oct14/vol72/num02/Move-It-or-Lose-it!.aspx" \l "fn1)  Before introducing the water cycle, for instance, Mrs. Johnson–one of five teachers who incorporated movement into lessons as part of an action research project–reminds students of the gestures they created when they learned the chemical formula for water. They used American Sign Language signs for the letters *H* and *O* and the numeral *2* and then pantomimed drinking a glass of water.

Mrs. Johnson asks for ideas for physical movements to represent the water cycle. Energized by the activity, several students pretend to drink water, then draw circles in the air with their arms. The class unanimously agrees to adopt this representation for the concept.

Small groups then take on the task of creating movements or gestures to illustrate terms for parts of the water cycle: *evaporation*, *condensation*, *precipitation*, *transpiration*, *runoff*, or *accumulation*. The class is actively engaged–except for Jorge, who is hunched over with one hand on his knee, stroking his chin with his finger. Perplexed, Mrs. Johnson questions him. "I'm thinking about my hy-poth-e-sis," Jorge says (stroking a finger on his chin for each syllable) "about the water cycle and global warming."

**Why Movement Boosts Vocabulary**

The opening scenario shows Mrs. Johnson's foray into using purposeful planned movement (PPM) in classroom vocabulary instruction. We define purposeful planned movement as a range of strategies–from short activity breaks, to gestures that create mental imagery for key concepts, to more far-ranging physical activities like simulations or role-plays.

Linnea Lyding developed this strategy in response to her concern–shared by others at the school where she taught–that students are now expected to master more complex academic content, including vocabulary, earlier and faster than ever before. Teachers are delivering more direct instruction in their classrooms (Sprung, Froschl, & Gropper, 2010; Suggate & Reese, 2012) and elementary students are sitting for longer periods of time and completing more pencil-and-paper tasks. Purposeful movement in lessons lets teachers meet students' physical, cognitive, and emotional needs, rather than just talk while kids listen.

Purposeful planned movement is Lindgren and Johnson-Glenberg's theory of embodied cognition put into practice. As those theorists state, "cognitive processes involved in learning, such as conceptual development and comprehension, are built upon a foundation of physical embodiment" (Lindgren & Johnson-Glenberg, 2013, p. 446).

Hostetter and Alibali (2008) further note that the tight coupling of motor and perceptual processes that's important for physical interaction with the world is also important for forming mental representations of the world. So when it comes to learning vocabulary, using movement and gestures has the potential to increase learning.

Adding a kinesthetic connection can help students create a mental image of abstract concepts and strengthen the way they think about or understand those concepts (Block, Parris, & Whiteley, 2008; Goldin-Meadow, 2010). When students create a movement while they explain the meaning of that movement, for instance, they build conceptual understanding, which enriches their schema. And brain researcher John Medina (2008) notes that "when touch is combined with visual information, recognition learning leaps forward by almost 30 percent" (p. 208).

Teachers recognize that learning new vocabulary is valuable because of the understandings it affords students. However, teachers are often fearful of trying new ideas, especially ones that require students to get out of their seats. Their fear is understandable. Designing planned purposeful movement isn't always intuitive and isn't common practice. Yet teachers need to experiment with strategies like integrating movement, now more than ever.

Although the Common Core State Standards (2012) don't directly mention fusing movement with vocabulary practice, their wording supports this practice. The standards note, "When students make multiple connections between a new word and their own experiences, they develop a nuanced and flexible understanding of the word they are learning" (National Governors Association [NGA] Center for Best Practices & Council of Chief State School Officers [CCSSO], 2010, p. 32). Purposeful movement helps students make multiple connections between a new word and their own physical responses.

**How to Infuse Movement**

To succeed with planned purposeful movement, teachers must plan carefully. We recommend following these steps (which make up the acronym Move it) as you carry out the planned purposeful movement approach.

***1. Make wise word choices.***

Choose the words for which students will learn movements wisely. Within a thematic unit, select words that students will see frequently and that will help them grasp conceptual understandings or deep meanings within the unit. The Tier Two words that span content areas identified in the Common Core State Standards (NGA & CCSSO, 2010, p. 33) are a good place to start. Such words–like *model, table, accumulate, resources*, and *procedure*–are frequently encountered in complex texts and are especially powerful because they apply when reading many different kinds of texts.

***2. Offer modeling.***

Once you have selected words, demonstrate the kinds of movements, gestures, or sequence of actions that students will need to learn, and possibly to invent, to accurately represent these words. When devising and modeling sample gestures, keep two things in mind: The movement should clearly connect to or represent the meaning of the word, and appropriating a movement for each syllable provides the added benefit of improving enunciation and spelling.

For example, lifting the hands, palms upward, with each syllable voiced a little higher could represent the word *elevate* because it connects to the meaning of the word.

***3. Value student ideas.***

Once students understand the idea of using movement, they're often motivated to create their own gestures and motions and tell one another about them. For example, students in a class I observed decided to cover their faces for the word *humiliated*, "because when you are humiliated, you're embarrassed and don't want people to see you." They put their palms to their faces five times to represent the five syllables.

***4. Experience the connection in many ways.***

It's great to reinforce extended learning of word meanings through gamelike activities. Have one student demonstrate a movement without saying the word it represents while other students compete to guess the word, give the definition, and use it in a sentence. Or make students find their "partner" by identifying the classmate who is doing the movement for the vocabulary word they've been given. Encourage learners to use their gestures and motions often, even during assessments.

***5. Inspire through literature.***

Picture books and other children's literature are effective tools for engaging students in learning content and new vocabulary. For example, *Teammates* by Peter Golenboch (Harcourt, 1990) contains rich vocabulary that can deepen a student's understanding of concepts like discrimination and standing up for what's right. After reading the story, students can invent movements for words like *segregation* or *apathetic*. Students unfamiliar with these words will glean understanding by observing the movements peers create, a rich experience for English language learners.

***6. Talk about it.***

To check for and reinforce students' understanding, include activities in which students must explain how the assigned movement, or a movement they created, connects to the corresponding word. This is the key to using student movement to deepen word learning. Also, say a particular word you want to reinforce often, using the movement every time you do. Soon you'll see students doing the same.

**Action Research on Planned Purposeful Movement**

Linnea Lyding began to incorporate planned purposeful movement into her lessons as a special education teacher at a K–6 Title I school in Phoenix, Arizona. Noticing her unusual methods, some colleagues wanted to learn more.

So five general education teachers at this school participated in a 12-week action research project, which Linnea led. The teachers planned and carried out lessons involving purposeful movement, using the lesson study process to help one another experiment. Linnea provided an initial training in purposeful movement techniques before the beginning of the school year.

Teachers coplanned a lesson involving movement or gestures, and then one teacher taught the lesson while the others observed her implementing the lesson and collected data on how it went. The participants met to reflect on what worked—or didn't—in the lesson, and kept repeating this cycle with new lessons they devised.

Linnea collected and analyzed data on the effects of movement-infused lessons–through classroom observations, reviewing lesson plans, and conversations with teachers and students. Observations showed that student engagement was high throughout the entire lesson when movement was incorporated, with observers rating 96 to 99 percent of the class as showing "emotional and behavioral engagement."

In interviews, teachers made comments like, "students seemed uninterested as the lesson began, but were at full attention once movements were introduced." Students made equally positive statements. One said that movement "helps me memorize the things …. Whenever we do the movement, I'm like, Oh—it's *this!*So I remember."

After three months of implementing this practice, teacher comments reflected remarkable academic growth in their students: "They all got 100 percent on their vocabulary!" and "This year, these guys all used their words appropriately." Students were making connections with words across different domains. After learning about procedures in science, several students encountered directions in reading class and excitedly pointed out to the teacher that directions were just like procedures.

***Active* Citizens**

President Obama has urged us to consider longer school days and school years, and school districts are beginning to implement this idea ("Obama Proposes Longer School Day," 2009). Thus, young children will be expected to sit and learn in the classroom for increased amounts of time.

Rather than worrying about the effects of more hours of direct instruction, let's focus on how teachers can spend this extra instructional time well. Using meaningful movement during direct instruction not only increases students' understanding and retention; it's also highly enjoyable. Enjoying learning helps students remember content, increases their motivation, and facilitates creative problem solving—all skills that today's students will need to participate actively in the 21st century.

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**Endnote**

[1](http://www.ascd.org/publications/educational-leadership/oct14/vol72/num02/Move-It-or-Lose-it!.aspx" \l "ref1)  This vignette is a composite of several teachers' experiences using planned purposeful movement.

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