



Vocabulary Instruction Meets Concept-Building

*Catherine LoMonico and
Catherine Saldutti* explain how
their vocabulary acquisition
system integrates with
class content

A New York City Classroom

A class of tenth graders begins to shift in their seats as a short lesson on chemical bonding comes to an end. Ms. Chen's chemistry class is comprised of a multi-cultural, multi-national group of New York City adolescents. While some students have facility with English and others do not, abstract science concepts are difficult to grasp for most. Ms. Chen understands that in order to make the subatomic world dynamic and more tangible, she must invite her students to grapple with these chemistry concepts interactively.

For the next activity, Ms. Chen's agenda indicates: Chemistry Charades. These tenth graders have become experts at a variety of interactive, concept-building activities and need only a few basic rules to engage in this one. Ms. Chen announces the teams, a combination of pre-existing lab groups to make three groups of 10 students. Each team is given a Concept Card related to the previous lesson on chemical bonding. After 10 minutes of group planning and rehearsing, the charades begin. The teams are energized by their classmates' performances; students cheer as they correctly guess "ionic," "covalent," and "polar-covalent." Once the tenth graders are settled back into their seats, Ms. Chen projects images of molecular structures showing each type of bonding. "Which is which?" she inquires. Many students respond accurately; in this way, she continues to solidify her students' understanding of chemistry concepts.

Ms. Chen's students have become accustomed to 10-20 minute, concept-building activities that sometimes involve the whole class, small groups, pairs, or individuals. Students in this tenth grade class create concept maps, draw pictures and diagrams to correspond to concepts, use concept cards to prompt them to use science terms when speaking and writing, and learn about new concepts by exploring how they fit into pre-existing concept maps that are archived on the walls. Emergent language learners (indeed, emergent chemistry learners) can engage in the kinesthetic activities, can rely on visual cues throughout the classroom, and can begin to use vocabulary in conversation before they need to use these words in their writing.

Traditional Vocabulary Lessons

Like Ms. Chen, most teachers recognize the necessity for vocabulary instruction to facilitate reading comprehension and writing in the content areas. Unfortunately, vocabulary instruction is often relegated to a single compartmentalized lesson or to part of a lesson used as a sidebar exercise. Sometimes teachers generate lists of terms for students

to "define," an exercise often resulting in copying from textbook glossaries or "cutting and pasting" from online dictionaries. Dictionaries, glossaries, indices, encyclopedias, and thesauruses are wonderful classroom resources. But when students "look up" words, they often have difficulty translating the appropriate meaning back to their classroom studies — or into their own words. Ultimately, these traditional approaches to vocabulary acquisition often culminate with students cramming for a quiz or test at the last minute, after which they are hard pressed to recall the terms, their relevant definitions, and their practical applications. Isolated vocabulary exercises often are irrelevant to the context(s) used in the classroom, and students tend not to internalize the concepts embodied by the vocabulary terms. Worse yet, these lessons can confuse or even contradict the learning process.

A Tool for Interactive Concept-Building

What is happening in Ms. Chen's classroom is made possible by her school's adoption of a vocabulary acquisition tool called Concept Construxions.™ As a cross-curricular initiative, this tool supports learning as students move from subject to subject throughout the school day. It is also a flexible system grounded in literacy and cognitive research; it supports best-practice instruction for a diverse student population; and it supports learners at all literacy levels. In addition, Ms. Chen is in contact with her feeder middle schools to ease academic transitions via this multi-level system.

The system is comprised of three major features, each playing a role in the concept-building efforts (See Figure 1). Concept Cards™ are the building blocks, using a color and shape system to help students create "buckets" of concepts as they move through and across disciplines. Concepts Cards display single words, symbols, values, phrases and equations that are large enough to be seen from anywhere in the room, and the dry erase surface encourages teachers and students to personalize them for classroom use.

Students take turns kinesthetically manipulating the Concept Cards into different concept maps and other organizational schemas (e.g., lists, hierarchies, flow charts, cycles, etc.) on the portable Construxion Site.™ This panel is used for "word play," allowing students to learn vocabulary in "real-time" and on a need-to-know basis when new terms surface in readings, class discussions, or visual aids.

The third main feature of the system is the Converse and Convey Panel,™ named for its role as a supporting visual prompter that encourages students to use specific terms when they speak and write.