

**University of Nebraska - Lincoln**  
**DigitalCommons@University of Nebraska - Lincoln**

---

Faculty Publications: Department of Teaching,  
Learning and Teacher Education

Department of Teaching, Learning and Teacher  
Education

---

2009

# The Essentials of Vocabulary Teaching: From Theory to Practice

Aleidine Kramer Moeller  
*University of Nebraska-Lincoln*, amoeller2@unl.edu

Olha Ketsman  
*University of Nebraska-Lincoln*

Leyla Masmaliyeva  
*University of Nebraska-Lincoln*

Follow this and additional works at: <http://digitalcommons.unl.edu/teachlearnfacpub>

---

Moeller, Aleidine Kramer; Ketsman, Olha; and Masmaliyeva, Leyla, "The Essentials of Vocabulary Teaching: From Theory to Practice" (2009). *Faculty Publications: Department of Teaching, Learning and Teacher Education*. Paper 171.  
<http://digitalcommons.unl.edu/teachlearnfacpub/171>

This Article is brought to you for free and open access by the Department of Teaching, Learning and Teacher Education at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Faculty Publications: Department of Teaching, Learning and Teacher Education by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

# 1

## The Essentials of Vocabulary Teaching: From Theory to Practice

Aleidine J. Moeller  
Olha Ketsman  
Leyla Masmaliyeva  
University of Nebraska-Lincoln

### Introduction

Vocabulary is central to the learning and teaching of a second language as it affords learners access to all forms of oral and written communication that includes literature, music, and content knowledge. Word knowledge is power as words serve as building blocks to learning. Vocabulary building often occurs through reading; however, in the foreign language classroom due to the heavy concept load involved in reading a second language it is unlikely that students will acquire the essential vocabulary needed to comprehend the content and information they encounter in many texts. One of the major roles of the teacher then becomes to assist students to learn vocabulary as well as to equip them with strategies for learning words.

This article addresses the following questions: How can vocabulary be taught efficiently in a way that engages the learner and promotes long-term retention for easy retrieval for future communication? What types of input and tasks can the teacher provide her learners in order to move vocabulary from input to intake and into the developing system in order to retrieve this information as needed for output? How is vocabulary best introduced and practiced to ensure optimal retention?

Learning vocabulary begins in a learning environment that is rich in oral and written language, one in which incidental learning and direct teaching opportunities are provided to acquire and practice language. Van Patten and Lee's (2003) model of process oriented instruction emphasizes the importance of presenting and practicing language structures in the form of input in order to ensure that it becomes intake on the part of the learner before attempting language output. While this model is

## 2 Diverse by Design

proposed for the teaching of grammar, the same process can be applied to vocabulary acquisition. In order to quickly and easily access vocabulary as needed in oral and written communication, language learners must internalize the vocabulary and store this information in long-term memory. Research has provided evidence of how such long-term retention occurs and classroom-based studies have provided insights into how vocabulary can be effectively taught in the language classroom to ensure language retrieval and enhance oral and written communication.

This article summarizes research-based best practices for teaching vocabulary that the language educator can implement to increase vocabulary retention and improve language proficiency among language learners. The organization of the article follows a what, why, and how format. The vocabulary principles are defined in the *what* section, the research-based evidence is summarized under the *why* section, and the *how* section contains exemplars for classroom application.

### Learning with Multimedia

**What:** Multimedia refers to a combination of words, sound, and pictures. Words refer to printed or spoken texts, pictures include both still and dynamic graphics, video, photos, maps, and illustrations while sound includes aural input provided via radio, television, films, podcasts, and music.

**Why:** Teaching with multimedia increases speed and enhances retention of vocabulary when words occur in a variety of contexts such as animated images and images supported by text (Duquette, Renie, & Laurier, 1998). Oral speech, written text, and visual cues increase listening comprehension (Baltova, 1994; Secules, Herron, & Tomasello, 1992) and promote L2 vocabulary acquisition (Duquette 1993; Jylha-Laide & Karreinen, 1993).

The integration of sound, pictures, animations, and video in addition to text plays an important role in vocabulary acquisition (Chun & Plass, 1996; Chun & Payne, 2004). When lexical items are presented together with images it fosters numerous cues and increases retention because the image and word are dually coded. The mind encodes information enhancing the learner's ability to recall information. The combination of a text and visual is more effective in facilitating vocabulary learning than definitions of words alone (Akbulut, 2007; Nikolova, 2002; Jones & Plass, 2002). Multimedia can compensate for memory limitations among students with a lower capacity for remembering phonological information while reading an L2 text (Chun & Payne, 2004).

Multimedia provides easy access to glosses and online aids designed to assist the learner in decoding the meaning of the word through images, explanations in the L1 or L2, or L1-L2 translations. Students with access to computer mediated text glosses yielded consistently better measures of vocabulary and reading comprehension (Lee, 2008; Lomicka, 1998).

Higher gains in vocabulary acquisition were reported when students themselves authored a multimedia module (Nikolova, 2002). With the shift from Web 1.0, where consumers largely accessed data and resources from the Internet, to Web 2.0, where consumers are placed in a participatory role as producers

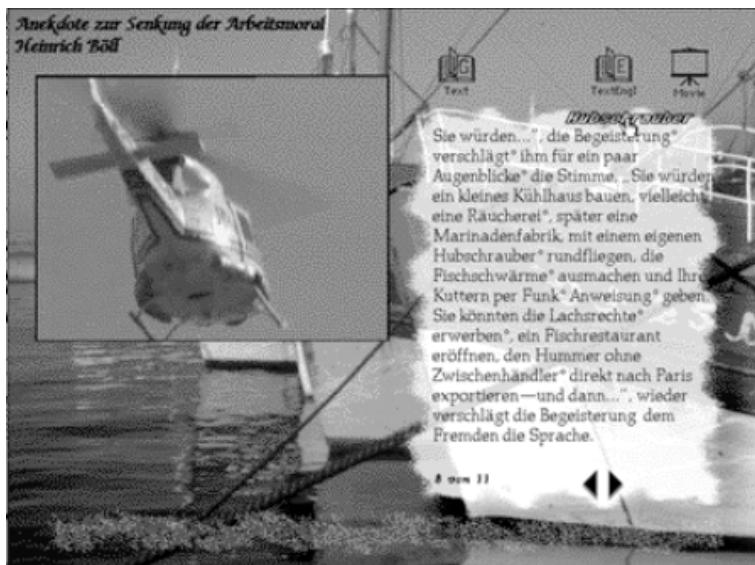
of resources, the opportunities to author multimedia modules has increased exponentially allowing students to share their products in the public domain.

Multimedia can provide students with options for viewing material in either visual or verbal modes, or both, in order to address individual learning styles. For example, learners who possess high spatial abilities benefit more from multimedia than those who have low spatial abilities (Mayer & Gallini, 1990; Mayer & Sims, 1994). Low verbal ability students especially benefit from visual aids and input (Peek, 1993).

**How:** One of the most effective ways to integrate multimedia in the language classroom is through the use of PowerPoint and Apple Keynote. Students create a presentation based on reading and information gleaned from a text and then process this information by summarizing and interpreting it through images, words, and sound, thereby creating a multisensory learning environment (Nemtschinova, 2004). Teachers can flash a culturally authentic picture on the screen when introducing new vocabulary, click to hear a native pronunciation of the word, and click to see the written word in the L2. These PowerPoint presentations (PPTs) can be posted on the school or course website making them available for students to practice. By having students create PPTs, the learning process is deepened as they skim and scan documents to locate information, choose the appropriate images, add features (sound, text), and present the results to their peers.

*Cyberbuch*, an interactive multimedia program available commercially, promotes the development of higher level reading skills and provides learners with information on decoding vocabulary using multiple modalities. *Cyberbuch* uses authentic literary texts that allow students the option to select the modality in which they want information to be presented according to individual learning preferences. A student uses a drop and drag function to obtain various forms for information such as a definition of the word in the target language, the pronunciation of the word, a still picture, or a video illustrating the object, action, or concepts. A learner is also presented with the option of hearing the text read by a native speaker while the text being read is highlighted, combining the aural and textual input. Learners have several online assessment options and can access background information about the author, text, and historical context of the short story.

CD-ROMs containing children's stories offer multilingual options and contain several features described above. These interactive stories can be used effectively in learning stations where students are provided with headphones to listen to the story while completing a series of tasks prepared by the teacher that focus on developing language skills and fluency. By using stories the students know in their L1, students have a context, or background knowledge of the story, and can focus on vocabulary decoding and practice. The dynamic and interactive options (click on a picture of the bird and then it sings a few lines from a famous aria) offer humor, opportunities for oral and written descriptions, and promote summary and interpretation skills as well as circumlocution strategies. These inexpensive CD-ROMs provide aural, visual, and textual input and can easily be adapted to the language classroom by theme, content, or grammar structure.



**Figure 1.** Cyberbuch screen shot

(Source: <http://www.gss.ucsb.edu/faculty/dmchun/cyberbuch/CBI.gif>)

### Chunking Language

**What:** Miller (1956) introduced the concept of “chunking” in his paper entitled *The magical number seven, plus or minus two*. Chunking refers to a strategy for making more efficient use of short-term memory by breaking down large amounts of information into smaller chunks. Chase and Simon (1973) suggested that the capacity of short-term (working) memory is limited to seven items, or chunks, hence the formula  $7 \pm 2$ .

Even though it is believed that short-term memory is limited to seven items only, the notion of vocabulary items or chunk varies. Chunking can mean both the breaking down of large amounts of information as well as grouping small chunks into larger categories. It does not necessarily mean that our mind can process only seven words at a time. A chunk can represent seven sentences, seven verses, or seven lines.

**Why:** The ability to break large language chunks into smaller ones, and to group small chunks into larger ones extends the process of retention of information and allows for greater compression of information in working memory (Kalivoda, 1981). Such compression enhances the limited capacity of working memory and allows the learner to retain more information.

Shaffer et al. (2003) demonstrate this using the example of a phone number. Even though the phone number 2354827 consists of seven items, it is much easier to remember if we further divide it into 235-4827 rather than trying to remember it as 2 3 5 4 8 2 7. Although, this example “suggests that chunking does not need an underlying meaning associated with the elements that were chunked” (p. 4). The authors conclude that retention is significantly enhanced if chunks are created

in association with meaning. To support this claim, they suggest memorizing Voltaire's quotation chunked as follows:

"Vers esth atdo notte achme nnew andtou ching trut hsdon otdes erveto bere ad" (p. 4).

However, once chunked differently the quote is very easy to remember:

"Verses that do not teach men new and touching truths do not deserve to be read."

**How:** Arranging vocabulary into semantic clusters of seven to ten related items rather than presenting a list of unrelated words in isolation will enhance retention. For example, when introducing vocabulary in preparation for a reading text, students should receive a list of vocabulary words that are related (e.g., carpenter, wood, tools, building, saws, construction) by content or context. Students quickly associate the words with a theme or context and more easily store the vocabulary in long-term memory. In order to assist students in actively manipulating vocabulary, the teacher can present a long list of vocabulary drawn from the last several chapters and students can be asked to place these words into meaningful categories and share their rationale for the categories. Students often generate extremely creative categories that illustrate how differently individuals think and learn.

Semantic maps, or visual representations that connect a key concept with related events and ideas, are excellent ways to determine the background knowledge of students and to organize this knowledge in a way that connects what they know to the new concepts and vocabulary they will be learning. For example, the teacher writes the word Grimm Brothers on an overhead transparency and collects associations and knowledge about these individuals from the students. Once all associations have been recorded, categories are formed to summarize the knowledge students have about the Grimm Brothers. Students, in pairs, receive an information gap activity where one partner has information about the Grimm brothers and the other partner has information about fairy tales. Both have questions on the bottom of their sheet that they need to ask their partner. Students do the reading, listening, speaking, and writing about content that may be new or build on what they already know. Once the activity is completed, students return to the semantic web and add the newly acquired knowledge and information according to the appropriate categories. Students actively manipulate the vocabulary several times in various contexts promoting long term retention of the words and concepts.

### Authentic Visuals and Oral and Written Texts

**What:** Authentic materials are generally defined as "those written and oral communications produced *by* members of a language and culture group *for* members of the same language and culture group" (Galloway, 1998,

## *6 Diverse by Design*

p. 133). They provide an appropriate sociocultural context for language learning and allow students to read, see, and feel real language purposefully.

**Why:** Authentic materials are used to create “as close an approximation as possible to the world outside the classroom” (McDonough & Shaw, 1993, p. 43), capturing multiple nuances of a word that cannot otherwise be recorded and conveyed by an absolute meaning of a word provided in a dictionary. Words reflect the culture in which the language is spoken and do not always capture the meaning associated with the concept.

Moreover, every person possesses his or her own “user’s model,” the mental model of the way things are supposed to look that is developed “through interaction with the system” (Norman, 1990, p. 16). Since different people interact with different “systems” this mental model is not universal. Bringing your own understanding of how things should look in another culture can create confusion and frustration since this mental model is not always transferable. Bush (2007) provides several examples of such non-transferable mental models:

A student who learns that “pain” is the French word for bread might easily conjure up an image of soft, squishy Wonder bread, causing one to question whether the student adequately understands the concept represented by the word “pain.” Consider a few other examples. A French “pâtisserie” in no way resembles a typical American iced cake. Nor does a small “hôtel” in Paris look like a Holiday Inn. And almost no French “fromage” is like cheddar or even close to mozzarella, the closest that most American students have come to “foreign” cheese. Based solely on their experience, would it be unreasonable for students from New York to expect a “taxi” to look like a Yellow Cab? Finally and predictably, perhaps these students, when encountering the word “lycée,” might think of an American high school and guess that a “lycée” would resemble the mental image evoked by their personal experience. (p. 729)

**How:** The integration of multimedia technology into teaching language gives students access to authentic video footage and other cultural materials that can help them understand sociocultural contexts in which the language is used (Kramsch & Andersen, 1999). Classroom teachers can select video clips, music videos, DVDs, and movie trailers from the Internet that are tied to the content or language structures related to the chapter or unit content that provide language learners with authentic visual input. The following serves as an example of a classroom application of authentic video integration:

- Students grouped in pairs fill out a Venn diagram noting the unique characteristics observed about Spanish dining practices as they view a video.
- With their partner they record the unique features of U.S. dining practices on the other side of the Venn diagram circle.
- The dining practices are compared and the overlapping circle space is used to record similarities shared by both cultures. This places the learners in the role of observers of their own and the target culture and helps to suspend

personal judgment concerning which cultural practices are correct and which are not.

The visual element of a target culture bakery that reveals a variety of breads and how they are wrapped and carried home is much more effective in communicating cultural practices than explaining this through words. The visual element immediately presents a real picture without the interference of what students already know and imagine. They can quickly adjust their schema. It is important to provide a pedagogical task, such as the Venn diagram, that actively involves learners in making sense of this visual input. In pairs, students can negotiate meaning and create a product (Venn diagram) that reveals the level of understanding of the concept presented.

### A Counterbalanced Approach between Form and Meaning

**What:** A counterbalanced approach is one of the instructional strategies promoted in content-based instruction. It is defined as a systematic integration of content-based and form-focused instruction that requires students to shift their attention between content and target language features (Lyster, 2007).

**Why:** Establishing a form-meaning connection is the first step in vocabulary acquisition. However, the vast majority of vocabulary materials and activities in a content-based classroom seem to view learning the meaning of a word as a more significant aspect of vocabulary acquisition and either disregard or downplay the form element (Schmitt, 2008). In the more traditional language classroom, form is the focus and content seems to be a secondary concern. A counterbalanced approach advocates for equal attention to both word meaning and word form (See Figure 2).



**Figure 2.** Counterbalanced approach to form and meaning

**How:** By creating true/false statements that force learners to attend to both form and content students are actively engaged in determining the accuracy of statements. The following serve as examples:

Ronald Reagan is a good politician (T/F)  
Nancy Pelosi is the U.S. Vice President (T/F)

The first instinct is to answer “yes” to the first statement, but upon closer attention to the form of the verb, the response has to be deemed false as Ronald Reagan is no longer alive, hence the statement should read: Ronald Reagan was a good politician. This requires deeper processing on the part of the learner. The

## 8 Diverse by Design

second statement forces attention to form and content, but the content message is incorrect. This engages students cognitively in decoding the meaning while paying attention to form to assist in determining the accuracy of the statement.

By choosing content from other areas such as mathematics, literature, science, political science, art, or history, students learn or re-learn knowledge that will activate their background knowledge and build upon that knowledge through the medium of a second language. Through carefully scaffolded problem-solving tasks, the language teacher can challenge students cognitively even though their linguistic output may be limited. The key to successful tasks is to use texts, visuals, and graphics that allow students access to content. For example, when teaching vocabulary for food, the teacher can use the food pyramid to promote healthy eating habits and information regarding nutrition. (See Figure 3) By using authentic visuals and graphics from the target culture, students learn incidentally about the variety of foods specific to this culture. A variety of learning tasks associated with this topic may include:

- The teacher has students create a graph indicating (based on this visual) which food groups should be eaten in greater quantity and which should be eaten sparingly. Their findings can then be confirmed via an article accessed through the Internet listing all the foods included in each group and how many servings are suggested.
- A list of foods in the target language can be provided and students can categorize these according to food groups.
- Students record their eating habits for three days, create a table of food consumption and determine if they are meeting the guidelines of good nutrition.
- Locate or provide a graphic on the Internet that compares countries by the number of calories that are consumed. This also allows the teacher to address geography, issues of world hunger, consumption, eating disorders, and eating habits.

Real tables, graphics, visuals, and texts from the target culture serve as authentic informational documents that engage learners in real world tasks and are taken seriously by students enhancing the value of language learning.

### Align with Standards and Develop Modes of Communication

**What:** Language instruction must align with the five goal areas (Communication, Cultures, Connections, Comparisons, and Communities) as outlined in the *Standards for Foreign Language Learning in the 21<sup>st</sup> Century* and prepare students to develop their abilities across the three communicative modes: Interpersonal, Interpretive, and Presentational (ACTFL, 1998).

The Presentational mode is defined as one-way communication (one-to-many) that does not provide an opportunity for negotiation of meaning. Performance in the presentational mode is usually rehearsed and involves speaking and writing. The Interpretive mode also represents one-way communication with no access to active negotiation of meaning. Meaning is usually interpreted by means of

inferencing, i.e., drawing inferences via generalizations, prior knowledge and personal background (Shrum & Glisan, 2005). The Interpersonal mode, on the other hand, is characterized by active negotiation of meaning by means of clarifications and adjustments to convey meaning and intentions (Shrum & Glisan, 2005). Unlike the rehearsed Presentational mode, the Interpersonal mode is usually spontaneous.



**Figure 3.** Vegetarian food pyramid

(Source: <http://consumerbrigade.com/veganlife/files/2008/08/vegan-pyramid-800x600.jpg> )

**Why:** Using all three modes of communication will enhance language learning since the Interpretive mode facilitates comprehension and interpretation of a text as well as acquisition of new information; the Interpersonal mode encourages students to share the inferences they drew in the Interpretive mode and their reactions; and the Presentational mode allows students to use newly acquired knowledge as they create a final product (Shrum & Glisan, 2005).

**How:** When planning a lesson on the topic of friendship, for example, which can be based on a literary text, short story, newspaper article, or film, the teacher has students:

- interview a class member about their best friend and how that friendship began, what characteristics are endearing, which ones are less endearing, and how long the friendship has lasted (Interpersonal spoken).
- in groups of four the students prepare a written list of positive and negative characteristics of “friends” and prioritize them on a continuum supported

## 10 Diverse by Design

by arguments as to why some characteristics are more important than others (Interpersonal written).

- students listen to an interview with famous individuals who describe their best friends (Interpretive spoken), or read interviews with famous individuals who describe their best friends (Interpretive reading).
- students compare their list of valued characteristics with the written or spoken interviews and create a graphic that depicts similarities and differences.
- students prepare a Power Point in which they describe their best friend (Presentational spoken) or write a letter to their friend describing why they value their friendship (Presentational written).

Such context-based activities are inclusive of all skills and provide a variety of input opportunities that enhance vocabulary retention.

### Promote a Deeper Level of Processing

**What:** A deeper level of processing occurs when tasks require higher degrees of need and evaluation and create a higher involvement load, resulting in better word retention (Keating, 2008). Deeper learning requires learners to follow multiple rules of operation to complete the task, such as assembling a bicycle, improvising a recipe, or preparing a syllabus (Feldman, 2000). The learning of information does not result from a mere reading of the content but from processing, thinking about, or reflecting on the content (Jensen & Nickelsen, 2008). Using a variety of strategies to process information helps learners explore and retain the information long term.

**Why:** Effective learning will occur when a deeper level of semantic processing is required on the part of the learner. Students have higher chances for long-term retention when they have more opportunities to engage with new vocabulary (Schmitt, 2008). The Depth/Levels of Processing Hypothesis implies that the more attention and manipulations a word receives, the higher the chances of storing the vocabulary in long term memory are (Craik & Lockhart, 1972). When students are asked to manipulate words, relate them to other words and to their own experiences, and then to justify their choices, word associations are reinforced. The Involvement Load Hypothesis states that “the amount of mental effort or *involvement*” induced by a task facilitates vocabulary retention (Laufer & Hulstijn, 2001, p. 366). Classroom activities that demand deeper processing can be time consuming. However, critical thinking and problem solving skills are greatly enhanced as a result.

**How:** Information-gap activities are effective in promoting deeper processing and make use of higher level thinking skills like analysis, synthesis, and paraphrasing. The essence of this type of activity is that one student has information that another student needs to accomplish a task. For example, students might be asked to find the missing information from a train schedule, when one student is placed in the role of a passenger and the other in the role of a train station employee. Another example may ask students who are preparing for a party, each possessing a copy of his or her monthly schedule, to determine when the other

person is free so that they can organize the party together. Students must negotiate a time that works for both of them.

Jigsaw cooperative learning encourages interdependence through small group activities and promotes deeper thinking and processing by bringing together students in expert groups who discuss and interpret information through individual lenses resulting in rich discussion and a deeper level of processing. Each member of the group has an active role in working with the members from another group who have the same assignment, forming “expert” groups. Once the information has been reviewed and summarized the students return to the “home groups” and discuss the acquired information. They synthesize the results in the form of a presentation to be shared with peers.

Word-puzzles are also used to reinforce deeper processing and force students to think and synthesize information. Various examples of word-puzzles such as criss-cross puzzles, double-puzzles, mazes, letter tiles, cryptograms, hidden message puzzles, and fallen phrases can be designed using the following web-site: <http://puzzlemaker.discoveryeducation.com/>.

### **Provide Opportunities for Incidental Learning as well as Direct Vocabulary Instruction**

**What:** There are two main sources of meaningful vocabulary learning: *incidental learning* from context and *direct vocabulary instruction* (Sadoski, 2005). Incidental learning generally refers to “learning without intent to learn” (Lyster, 2007, p. 27). *Direct vocabulary instruction* refers to systematic demonstration of ways to determine the meanings of unknown words.

**Why:** Input-oriented language acquisition theory implies that learners will be able to connect meaning and form if the input is meaningful and contextualized (Min, 2008). Therefore, vocabulary should be acquired incidentally through extensive reading (Krashen, 2004). A specific threshold of vocabulary size is necessary for successful acquisition of vocabulary through extensive reading (Nation & Waring, 1997). Some define this threshold as 98% (8,000–9,000 word-families) of the words in the text (Hirsh & Nation, 1992; Hu & Nation, 2000; Nation, 2001), while others suggest that the threshold is around 3,000-5,000 words (Nation & Waring, 1997). Word retention in incidental learning tasks is very low when the goal is reading comprehension. The probability that a word would be learned upon first exposure ranges from 5 to 15 percent (Coady, 1993). Chun and Plass (1996) noted that “new annotated words that occurred in the reading text were remembered with 24.1%-26.5% accuracy” (p.187).

Oftentimes the “Matthew effect” occurs, underscoring the biblical adage “the rich get richer and the poor get poorer” (Stanovich, 1986). The more competent readers, who already possess the foundational vocabulary needed to benefit from incidental learning, will read more and increase their vocabulary while the less competent readers, who read less, will make fewer gains. This is due in part to the background knowledge that learners possess and use to deduce the meaning of unfamiliar words in a given text (De Bot, Paribakht, & Wesch, 1997; Lee & Wolf, 1997; Paribakht & Wesche, 1999), linguistic information or knowledge of

the code they have available, and their knowledge of the world. Relationships exist between L1 reading proficiency and L2 incidental vocabulary acquisition for intermediate and advanced learners (Knight, 1994; Haynes & Baker, 1993). L2 reading proficiency has a consistently strong positive impact on incidental vocabulary gain and retention through reading (Pulido, 2003). Students with a low level of second language proficiency do not transfer their L1 reading strategies to L2 reading as students of high and intermediate levels do (Taillefer, 1996).

Explicit vocabulary instruction was found to be more effective in vocabulary acquisition than incidental learning since it resulted in greater and faster gains and better retention (Schmitt, 2008). Intentional vocabulary instruction was proven especially beneficial for older and more advanced learners (Lightbown & Spada, 1999). Vocabulary growth has been shown to be higher when reading is supported by vocabulary-focused activities (Knight, 1994; Laufer, 2000, 2003; Lupescu & Day, 1993; Paribakht & Wesche, 1997).

**How:** To optimize vocabulary learning, both direct instruction and incidental learning should be promoted and a variety of vocabulary exercises should be provided before, during, and after the reading of the text. This focuses students on specific words and exposes them to the words in numerous contexts. A list of tasks for classroom integration may include:

- highlight words in the text that are the focus of the lesson
- include vocabulary learning exercises that require the students to refer to the new vocabulary and use it in various ways
- identify which word does not belong (from a list of 5 words) according to the content of the story
- place action verbs in order according to the chronology of events in the story
- select a character from the story or text and fill in a spider graphic that delineates adjectives used in the text to describe this character, e.g., actions of the character and the results of this action, a physical description of the character drawn from the text, or an emotional or personality description of the character according to self and others
- half the class captures the plot of the story chronologically on a graphic organizer consisting of nine squares through drawings, while the other half does the same using words. Students who prepared a word graphic partner with someone who prepared a graphic organizer using pictures and the pair must negotiate until they reach agreement on the major events and their chronology. Students choose and prepare a final summative product based on several options: write a summary of the story, prepare an aural audiotape in which the story is retold, prepare a video or PPT in which they retell the story.

## **Conclusion**

This article summarizes and analyzes important research in vocabulary teaching and learning and translates this research into best practices for the

foreign language classroom. Equipped with the knowledge of what, why, and how students best acquire vocabulary and language in the foreign language classroom, teachers can clearly articulate and illustrate to students, parents, and other constituents why they employ these pedagogical practices designed to increase language proficiency efficiently and effectively. Through the integration of multimedia, language acquisition and learning theory, authentic texts and visuals, and alignment with standards, language learners will feel more success and competence and grow more confident in their ability to communicate in their second language resulting in increased learning and self-motivation.

## References

- American Council on Teaching of Foreign Languages. *ACTFL performance guidelines for K-12 learners*. Yonkers, NY.
- Akbulut, Y. (2007). Variables predicting foreign language reading comprehension and vocabulary acquisition in a linear hypermedia environment. *The Turkish Online Journal of Educational Technology (TOJET)*, 6 (1), 1-7.
- Baltova, I. (1994). The impact of video on the comprehension skills of core French students. *The Canadian Modern Language Review*, 50, 507-532.
- Bush, M. D. (2007). Facilitating the integration of culture and vocabulary learning: The categorization and use of pictures in the classroom. *Foreign Language Annals*, 40 (4), 727-745.
- Chase, W. G., & Simon, H. A. (1973). The mind's eye in chess. In W. G. Chase (Ed.), *Visual information processing* (pp. 215–281). New York: Academic Press.
- Chun, D. M., & Payne, J. S. (2004). What makes students click: Working memory and look-up behavior. *System*, 32, 481-503.
- Chun, D. M., & Plass, J. L. (1996). Effects of multimedia annotations on vocabulary acquisition. *The Modern Language Journal*, 80 (2), 183-198.
- Coady, J. (1993). Research on ESL/EFL vocabulary acquisition: Putting it in context. In T. Huckin, M. Haynes, & J. Coady (Eds.), *Second language reading and vocabulary learning* (pp. 3-23). Norwood, NJ: Ablex Publishing.
- Craik, F. I., & Lockhart, R. S. (1972). Levels of processing: A framework for memory research. *Journal of Verbal Learning and Verbal Behavior*, 11, 671-684.
- De Bot, K., Paribakht, T., & Wesche, M. (1997). Toward a lexical processing model for familiarity in second language incidental vocabulary acquisition through reading. *Studies in Second Language Acquisition*, 19, 309-329.
- Duquette, L. (1993). *L'étude de l'apprentissage du vocabulaire en contexte par l'écoute d'un dialogue scénarisé en français langue seconde* (Publication No. B-187). Ste-Foy, QC: Université Laval.

## 14 Diverse by Design

- Duquette, L., Renie, D., & Laurier, M. (1998). The evaluation of vocabulary acquisition when learning French as a second language in multimedia environment. *Computer Assisted Language Learning, 11* (1), 3-34.
- Feldman, J. (2000). Minimization of Boolean complexity in human concept learning. *Nature, 407* (6804), 630-633.
- Galloway, V. (1998). Constructing cultural realities: “Facts” and frameworks of association. In J. Harper, M. Lively, & M. Williams (Eds.), *The coming of age of the profession* (pp. 129-140). Boston: Thomson Heinle.
- Haynes, M., & Baker, I. (1993). American and Chinese readers learning from lexical familiarizations in English text. In T. Huckin, M. Haynes, & J. Coardy (Eds.), *Second language reading and vocabulary learning* (pp. 130-150). Norwood, NJ: Ablex.
- Hirsch, D., & Nation, P. (1992). What vocabulary size is needed to read unsimplified texts for pleasure? *Reading in a Foreign Language, 8* (2), 689-696.
- Hu, M., & Nation, P. (2000). Vocabulary density and reading comprehension. *Reading in a Foreign Language, 13*(1), 403-430.
- Jensen, E., & Nickelsen, L. (2008). *Deeper learning*. Thousand Oaks, CA: Corwin Press.
- Jones, C. L., & Plass, J. L. (2002). Supporting listening comprehension and vocabulary acquisition in French with multimedia annotations. *The Modern Language Journal, 21* (1), 41-65.
- Jylha-Laide, J., & Karreinen, S. (1993). Play it again, Laura: Off-air cartoons and video as a means of second language learning: A case study. *Jyväskylä Cross-Language Studies, 16*, 89-147.
- Kalivoda, T. (1981). Developing advanced listening comprehension skill in a foreign language: Problems and possibilities. *Hispania, 64* (1), 80-85.
- Keating, G. D. (2008). Task effectiveness and word learning in a second language: The involvement load hypothesis on trial. *Language Teaching Research, 12* (3), 365–386.
- Knight, S. (1994). Dictionary use while reading: The effects on comprehension and vocabulary acquisition for students of different verbal abilities. *The Modern Language Journal, 78* (3), 285-299.
- Kramsch, C., & Anderson, R. W. (1999). Teaching text and context through multimedia. *Language Learning and Technology, 2* (2), 31-42.
- Krashen, S. (2004). *The power of reading*. Englewood, CO: Libraries Unlimited.
- Laufer, B. (2000). What lexical information do L2 learners select in a CALL dictionary and how does it affect word retention? *Language Learning & Technology, 3* (2), 58-76.

- Laufer, B. (2003). Vocabulary acquisition in a second language: Do learners really acquire most vocabulary by reading? Some empirical evidence. *The Canadian Modern Language Review*, 59, (4), 567-587.
- Laufer, B., & Hulstijn, J. (2001). Incidental vocabulary acquisition in a second language: The construct of task-induced involvement. *Applied Linguistics*, 22, 1-26.
- Lee, B. A. (2008). Computer-mediated glosses in second language reading comprehension and vocabulary learning: A meta-analysis. *Computer Assisted Language Learning*, 21 (3), 199-226.
- Lee, J. F., & Wolf, D. (1997). A quantitative and qualitative analysis of the word-meaning inferencing strategies of L1 and L2 readers. *Spanish Applied Linguistics*, 1, 24-64.
- Lightbown, P., & Spada, N. (1999). *How languages are learned* (2nd ed.). United Kingdom: Oxford University Press.
- Lomicka, L. L. (1998). To gloss or not to gloss: An investigation of reading comprehension online. *Language Learning & Technology*, 1 (2), 41-50.
- Luppescu, S., & Day, R. P. (1993). Reading, dictionary and vocabulary learning. *Language Learning*, 43, 263-287.
- Lyster, R. (2007). *Learning and teaching languages through content: A counterbalanced approach*. Amsterdam/Philadelphia: John Benjamins.
- Mayer, R. E., & Sims, V. K. (1994). For whom is a picture worth a thousand words? Extensions of a dual-coding theory of multimedia learning. *Journal of Educational Psychology*, 86 (3), 389-401.
- Mayer, R. E., & Gallini, J. K. (1990). When is an illustration worth more than a thousand words. *Journal of Educational Psychology*, 82 (4), 715-726.
- McDonough, J., & Shaw, C. (1993). *Materials and methods in ELT*. Malden, MA: Blackwell.
- Miller, G. A. (1956). The magical number seven, plus or minus two: Some limits on our capacity for processing information. *Psychological Review*, 63, 81-97.
- Min, H. (2008). EFL vocabulary acquisition and retention: Reading plus vocabulary enhancement activities and narrow reading. *Language Learning*, 58 (1), 73-115.
- Nation, P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.
- Nation, P., & Waring, R. (1997). Vocabulary size, text coverage and word lists. In N. Schmitt, & M. McCarthy (Eds.), *Vocabulary: Description, acquisition and pedagogy* (pp. 6-19). Cambridge: Cambridge University Press.

## 16 Diverse by Design

- Nemtschinova, K. (2004). Creating original language teaching materials with presentation software. In L. Lomicka & J. Cooke-Plagwitz (Eds.), *Teaching with technology* (pp. 19-26). Boston, MA: Thomson Heinle.
- Nikolova, O. R. (2002). Effects of students' participation in authoring of multimedia materials on student acquisition of vocabulary. *Language Learning & Technology*, 6 (1), 100-122.
- Norman, D. (1990). *The design of everyday things*. Doubleday Business: New York, NY.
- Paribakht, T., & Wesche, M. (1999). Reading and "incidental" L2 vocabulary acquisition: An introspective study of lexical inferencing. *Studies in Second Language Acquisition*, 21, 195-224.
- Peek B. (1993). Measuring learning and increasing productivity with the computer aided testing system. Retrieved October 10, 2008 from <http://www.ascilite.org.au/aset-archives/confs/edtech94/mp/peck.html>
- Pulido, D. (2003). Modeling the role of second language proficiency and topic familiarity in second language incidental vocabulary acquisition through reading. *Language Learning*, 53, 233-284.
- Sadoski, M. (2005). A dual coding view of vocabulary learning. *Reading & Writing Quarterly*, 21, 221- 238.
- Schmitt, N. (2008). Instructed second language vocabulary learning. *Language Teaching Research*, 12 (3), 329-363.
- Shrum, J. L., & Glisan, E. W. (2005). *Teacher's handbook: Contextualized language instruction* (3rd ed.). Boston, MA: Thomson Heinle.
- Secules, T., Herron, C., & Tomasello, M. (1992). The effect of video context on foreign language learning. *Modern Language Journal*, 76, 480-490.
- Shaffer, D., Doube, W., & Tuovinen, J. (2003). Applying cognitive load theory to computer science education. In M. Petre & D. Budgen (Eds.), Proc. Joint Conf. EASE & PPIG (pp. 333-346).
- Stanovich, K. E. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly*, 21 (4), 360-406.
- Taillefer, G. F. (1996). L2 reading ability: Further insight into the short-circuit hypothesis. *Modern Language Journal*, 80 (4), 461-477.
- VanPatten, B., & Lee, J. F. (2003). *Making communicative language teaching happen* (2nd ed.). New York: McGraw-Hill.