



FEATURED THEME: TEACHING IDIOMS

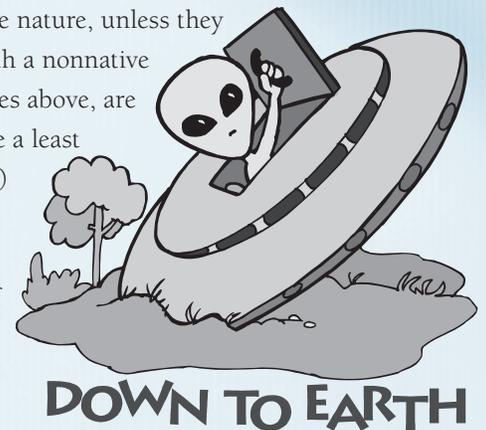
Teaching and Learning Idioms: The Big Picture

by Eve Zyzik
University of California, Santa Cruz

In recent years, there has been heightened awareness of the critical role of vocabulary in second language (L2) learning and teaching. Within this broad area of academic inquiry, there is also general consensus that the vocabulary of a given language is much more than a list of individual words. A speaker's mental dictionary (or lexicon) also contains a wide range of *multiword units* such as phrasal verbs ("put up with"), social routines ("take care"), collocations ("plastic surgery"), and idioms ("bite the bullet"). There is good reason for focusing on multiword units: research suggests that a large proportion of language—perhaps as high as 50 percent—is composed of such sequences (cf. Erman and Warren, 2000). Many of these multiword units contain one or more figurative elements, such that the meaning of the entire phrase is not easily predicable. Consider the following examples and think about how often you might have used or heard them:

1. I like him because he's so *down to earth*.
2. We all have to *be on the same page*.
3. Who's going to *foot the bill* for that?
4. Don't *beat around the bush*.

Native speakers use these expressions so frequently in everyday situations that they may not be aware of their figurative nature, unless they experience a communication breakdown with a nonnative speaker. Idioms, as illustrated in the examples above, are a particular type of multiword unit that have at least one element with a figurative (i.e., nonliteral) meaning. For example, "being on the same page" in (2) does not refer to reading in unison from a book, but rather to a group of people being in agreement on something. In this case, there is a fairly clear relationship between the figurative and literal meaning.



(Continued on page 4)

INSIDE THIS ISSUE

MAIN ARTICLE

EDITOR'S MESSAGE

CLEAR ON FACEBOOK

SUMMER WORKSHOP
OVERVIEW

ANNOUNCEMENTS &
RESOURCES

EDITOR'S MESSAGE

Dear Readers,

Greetings from Michigan State University! The students are back on campus and this morning I noticed a tree that has begun to turn gold ... it must be fall. We've finished up a busy summer at CLEAR, with five summer workshops taking place in addition to other professional development outreach and continued product development. Be sure to watch our website in October for a list of our summer 2010 workshops.

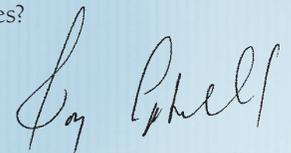
This issue of *CLEAR News* gives language teachers some concrete ideas on how to teach idioms, a topic sure to interest your students. Dr. Eve Zyzik shares several insights based on her own research and that of others. She also identifies a number of issues for teachers to consider when teaching foreign language idioms.

Also featured in these pages is an article announcing the launch of CLEAR's Facebook group. You have no doubt heard about this social networking giant, and we'd like to invite you to join our online community. There are wonderful networking opportunities for language educators just a few clicks away!

We continue to visit regional and national conferences to give sessions and run exhibits about CLEAR's free and low-cost products for world language teachers. We hope to meet some of you at ACTFL in San Diego this November. Come visit us at Booth #2143 in the LRC Pavilion to say hello and learn more about CLEAR and our products in person. You can also always visit our website for the latest information about CLEAR and our projects:

<http://clear.msu.edu>.

Finally, as you embark on a new year of teaching, I wish you all a fruitful and productive school year. Nelson Mandela once said, "Education is the most powerful weapon which you can use to change the world." What better way to help our students become agents of global change than to teach them the value of learning world languages and cultures?



Joy Campbell



Michigan State University
A712 Wells Hall
East Lansing, MI 48824-1027

Phone: 517.432.2286
Fax: 517.432.0473
Email: clear@msu.edu
Website: <http://clear.msu.edu>

Susan M. Gass & Patricia R. Paulsell
Co-Directors

Joy M. Campbell
Executive Associate Director

Dennie Hoopingarner
Associate Director for Technology

This publication was produced with support from a Department of Education grant (CFDA 84.229A and P229A060011). The contents do not necessarily represent the policy of the Department of Education, and one should not assume endorsement by the federal government.

SUGGESTIONS WANTED!

We strive to publish *CLEAR News* articles that represent current topics in foreign language teaching, and we want to hear from you! If you have an idea for an article or would like to see a particular subject addressed, please let us know at clear@msu.edu. We will consider your idea for future issues of the newsletter.

SUBSCRIBE TO CLEAR NEWS

CLEAR News is available in hard copy at conferences and workshops, and in PDF online. Visit our website to download PDFs of new issues as they are published, and to access all archived issues. You can also sign up to be notified via email when a new issue is available for download. To add yourself to our mailing list, click on "Contact Us" from our home page, then create an account for yourself.

The U.S. Department of Education awards grants through Title VI funding to a small number of institutions for the purpose of establishing, strengthening, and operating language resource and training centers to improve the teaching and learning of foreign languages. There are currently fifteen Language Resource Centers nationwide: the Center for Advanced Language Proficiency Education and Research (CALPER) at The Pennsylvania State University; the Center for Advanced Research on Language Acquisition (CARLA) at the University of Minnesota; the Center for Applied Second Language Studies (CASLS) at the University of Oregon; the Center for Languages of the Central Asian Region (CeLCAR) at Indiana University; the Center for Educational Resources in Culture, Language and Literacy (CERCLL) at the University of Arizona; the Center for Language Education and Research (CLEAR) at Michigan State University; the Language Acquisition Resource

Center (LARC) at San Diego State University; the National African Language Resource Center (NALRC) at the University of Wisconsin—Madison; the National Capital Language Resource Center (NCLRC), a consortium of Georgetown University, the Center for Applied Linguistics, and George Washington University; the National East Asian Languages National Resource Center (NEALRC) at The Ohio State University; the National Foreign Language Resource Center (NFLRC) at the University of Hawai'i at Manoa; the National K-12 Foreign Language Resource Center (NK-12LRC) at Iowa State University; the National Heritage Language Resource Center (NHLRC), a consortium of UCLA and the UC Consortium for Language Learning and Teaching; the National Middle East Language Resource Center (NMELRC) at Brigham Young University; and the South Asia Language Resource Center (SALRC) at The University of Chicago.

CLEAR Joins the Facebook Ranks

Social networking tools such as Facebook and Twitter are becoming an increasingly important means of communication, as a glance at any news source can tell you—articles on these Web 2.0 phenomena have appeared with regularity in both print and online news sources for the last several years. Given our interest in and commitment to making technology an integral part of the foreign language classroom, CLEAR has branched out into the world of social networking. While you shouldn't expect "tweets" from CLEAR staffers anytime in the near future (ask your students if you don't know what a tweet is), we do now have a Facebook group.

Facebook, for the uninitiated, is a free website that allows people to set up accounts that they then use to keep their friends and colleagues up to date on their activities. CLEAR is using its Facebook group to keep members informed about upcoming activities and conference presentations, new products, and professional development opportunities. The group is open and anyone can join. If you have a Facebook account, do a search for "CLEAR" and look for our logo in the search results. If you are new to Facebook and interested in learning more, begin at <http://www.facebook.com>.

We are hoping that we can use our Facebook group to maintain a dynamic online presence. Group members can post questions and discussion topics to the group's "wall," or collection of posts. A number of other language education organizations, such as ACTFL, the Central States Conference on the Teaching of Foreign Languages, and other national, regional and local groups, have a Facebook presence as well. Joining one or several of these groups allows you to keep on top of opportunities available to language educators as well as to network among others in our field and in related areas.

You might also consider using Facebook in your own classroom. It lets you connect with students via a medium with which they are mostly likely familiar and which they enjoy using. A helpful article entitled "Facebook for College Professors" can be found here: <http://www.slideshare.net/ProfAlliHost/facebook-for-college-professors>. This white paper gives step-by-step instructions on how to set up your own Facebook group and use it in (and out of) your classroom. Beginning a Facebook group for your own students also would allow you to direct them to resources

like CLEAR and its sister centers, language-related contests like those sponsored by ACTFL, and a host of other networks that can inspire enthusiasm for language learning. Another article, "Reaching Students with Facebook: Data and Best Practices," which can be found at http://southernlibrarianship.icaap.org/content/v08n02/mack_d01.html, gives a number of useful tips for entering the world of social networks.

Facebook is significant because it has become an important place for your students to communicate and interact. In addition to sending messages to each other and posting updates on their own and each other's walls, students are using Facebook to coordinate group projects and activities, post pictures, and conduct surveys and quizzes. Facebook also has a live chat program. For many students, Facebook is a communication hub for keeping in touch with their friends. They may be receptive to adding the new dimension of interacting with their teachers to their use of the social network.

CLEAR still maintains a separate discussion forum for its Rich Internet Applications (RIAs). This site is dedicated to sharing tips and information for getting the most out of these free online tools. The forum allows you to connect with other people using our RIAs, to ask questions, answer others' questions, and share your experiences in using the tools. To join the conversation, go to <http://ria.clear.msu.edu> and click on the "forums" link.

We hope to see you on Facebook soon!



The image shows a screenshot of the CLEAR Facebook group page. The page header includes the Facebook logo and navigation links: Home, Profile, Friends, Inbox, Settings, Logout, and Search. The main content area is titled "CLEAR Center" and includes a "Basic Info" section with the following details: Name: CLEAR; Category: Common Interest - Languages; Description: The Center of Language Education and Research (CLEAR) at Michigan State University was established in 1998 as a Language Resource Center (LRC) through a Title VI grant from the U.S. Department of Education. As an LRC, CLEAR strives to promote and support the teaching and learning of foreign languages in the United States through its various projects and outreach activities. It also mentions that in August 2006, CLEAR began its fourth funding cycle as one of 13 LRCs across the country. The "Contact Info" section lists: Email: clear@msu.edu; Website: http://clear.msu.edu/; Office: A-712 Wills Hall; Location: Michigan State University, East Lansing, MI. Below this is a "Recent News" section with "CONFERENCES" and "WORKSHOPS" listed. The "CONFERENCES" section mentions an exhibit at the Michigan World Language Association (MFLA) conference in October and an exhibit booth at the annual conference of the American Council on the Teaching of Foreign Languages (ACTFL). The "WORKSHOPS" section mentions CLEAR's summer workshops for 2010. The "NEWSLETTERS" section includes a link to download the current issue. On the right side, there is a "Join this Group" button, a "Group Type" section indicating it is an open group, and a list of "Officers" including Jon Campbell (Executive Associate Director) and Dan Haaslinger (Associate Director for Technology). There is also an "Admins" section listing Viree Bernal, Jon Campbell, and Dan Haaslinger. A "Related Groups" section lists MSU MA T&L, Studies of Second Language Acquisition and Pedagogy, and World Languages Day.

Grant and Bauer (2004) remind us that many figurative expressions can be “undone” or “unpicked” to work out the meaning; linguists refer to these as “transparent” or “decomposable” idioms. On the other hand, there are opaque idioms that have little (if any) overlap with the literal meaning (e.g., 4 above). Since not all idioms are equal, there is not one single definition accepted by all scholars. Nevertheless, most researchers agree that idioms can be characterized according to the following properties:

1. Their meaning is not completely derivable from the sum of the parts.
2. They are generally rigid or fixed in structure.
3. Although a literal meaning of the phrase is possible, it is less frequent.

In addition, I caution against considering idioms as simply the “colorful” side of language or “amusing” expressions that we use exclusively in colloquial settings. While this is a common perception, it is inaccurate. Although idioms are indeed more common in informal discourse, there are hundreds of idioms used in academic settings as well. For example, Simpson and Mendis (2003) conducted a corpus search of academic spoken English and found numerous idioms such as *on the right track*, *come into play*, and *down the line*. Furthermore, idioms are often used to achieve a desired communicative effect that cannot be easily expressed without figurative language (for example, try to think of a way to say “our plans fell through” without using the idiom *fall through*). In fact, research shows that idioms have more specific and complex meanings than their literal paraphrases (Gibbs, 1992). The implication is that idioms are an essential part of knowing a language and, thus, should be systematically incorporated into L2 curricula.

Before considering how to approach the teaching of idioms, it is important to consider some of the research findings in this area. There is a limited body of research on the L2 acquisition of idioms that yields the following insights:

Insight 1—Not all idioms will be equally difficult for learners to master. The degree of similarity between a given idiom in the L2 and its equivalent in the learner’s native language is an important variable. Idioms that are identical in both languages will be easiest to

learn. On the other hand, idioms that are only partially similar will likely cause errors. Laufer (2000) also reminds us that there are some idioms in one language that can only be expressed literally in another. For example, the English idiom “it’s over my head” (meaning something is very difficult to understand) has no corresponding idiom in Spanish; the idea can only be expressed literally.

Insight 2—Contextual clues are useful to learners in comprehending unknown idioms. Cooper (1999) explored the comprehension strategies used by L2 learners when trying to decipher the meanings of English idioms in one- or two-sentence contexts. The most commonly used strategies were guessing from context, discussing and analyzing the idiom, and using the literal meaning. Overall, guessing from context was the most successful strategy, leading to correct interpretation in 57 percent of the cases.

Insight 3—Teaching idioms based on their underlying themes or literal origins is a potentially useful approach. For example, Boers et al. (2004) outlines a teaching method based on problem-solving tasks in which students are made aware of the origin of figurative idioms. For example, the idiom “to be waiting in the wings” derives from the literal context of actors waiting in the wings of the theater before appearing on stage. In this approach, all idioms pertaining to a particular source domain (e.g., food and cooking) would be grouped together. A complementary method may be to group idioms according to their metaphoric themes (cf. Boers 2000). For example, the metaphor “mental control is physical control” yields many idioms, including *drop the ball*, *get a grip on something*, etc.

What do these research findings mean for teachers? First, and most important, it should be clear that idioms can be taught in principled ways that go beyond rote memorization or blind guessing. I consider on the following pages some of the specific issues that should be considered when incorporating idioms into the L2 classroom.



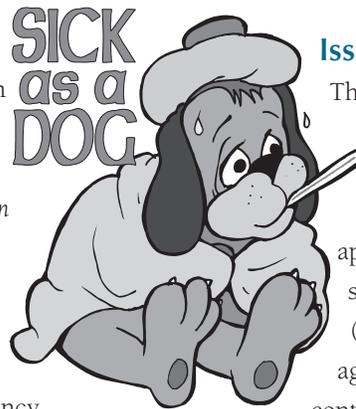
Issue 1–Which idioms to teach

This is a primary consideration since we want our students to learn those idioms that will allow them to participate more fully in interactions with native speakers. Since there are thousands of idioms in any language (for example, some English idiom dictionaries contain up to 7,000 idioms), we want to devote attention to the most useful ones. Generally “most useful” overlaps with “most frequent.” Fortunately, corpus research has greatly contributed to knowledge in this area; English as a second language (ESL) teachers may consult the work by Liu (2003) on the most frequently used spoken idioms in American English as well as the comparison of American and British English done by Grant (2007). Another potential resource is the *Longman grammar of spoken and written English* (Biber et al., 1999), which includes a small section on frequently used idioms. Teachers of languages other than English will be disappointed to learn that, unfortunately, such frequency analyses of idioms are not yet available. Nevertheless, frequency is not the only factor to consider when choosing which idioms to teach. Context of use will also determine how useful a particular idiom is for the target audience. For example, the idiom “call it a day” is a low-frequency item according to Liu’s corpus analysis, but is routinely used to mark the end of a class or meeting. Thus, in that context it is a very useful idiom. In short, frequency is only one criterion when choosing idioms for teaching purposes.

Issue 2–Separate lessons or an integrated approach

If you’ve decided to devote attention to idioms in your class, you may consider creating separate lessons in order to teach “useful” idioms. However, this is not necessarily the most effective approach. The reason is that idiom lessons will likely be limited in two ways: the time spent on them (perhaps only 15–20 minutes per week) and the naturalness of the language used to contextualize the idioms. For these reasons, many scholars have argued in favor of an integrated approach, which involves incorporating idioms into regular lessons that focus on any of the four skills. A first step would be to raise students’ awareness of idioms so that they develop a habit of noticing them in everyday situations, including reading and listening. Students can be asked to keep an idiom notebook;

they can later share their examples in class and ask questions about appropriate usage. Teachers can draw attention to new idioms by embedding them into regular vocabulary and/or reading activities. If we assume that idioms are best learned through exposure to authentic language (rather than contrived examples), teachers should take advantage of natural language source passages (e.g., TV, newspapers, or even a corpus search). Authentic examples can be easily modified for classroom purposes depending on the students’ proficiency level.



Issue 3–Specific classroom activities

There is no pedagogy exclusive to idioms; most research suggests using a wide range of techniques. Teachers can rest assured that most vocabulary teaching strategies will be applicable to idioms as well. An important first step is exposing students to idioms in context (see issue 2 above). Students should be encouraged to infer the meaning of the idiom by using contextual clues, conceptual knowledge, and/or first language equivalents. Teachers may provide assistance during this process, especially if the idiom is not easily decomposable. There are several techniques to make learners aware of the link between the idiom’s literal and figurative meanings. For example, students can draw pictures to represent the literal meaning; this can be particularly effective for lower-proficiency learners or for idioms that have image-evoking potential (e.g., “to be down in the dumps”). Alternatively, the teacher can provide an image associated with the idiom. Note that images/pictures are more than mere entertainment for your students; research suggests that forming a mental image of an idiom is a powerful tool for learning and further retention. After presenting idioms in context and helping students infer their meaning, teachers should force retrieval of the idioms that have been studied. This can be done in numerous ways, including typical vocabulary exercises like matching idioms to their meanings, filling in blanks with the appropriate idiom, replacing underlined expressions with an idiom, etc. Finally, to promote output and creative language use, students can write dialogues using the idioms or tell stories based on pictures. For additional teaching ideas, I recommend the articles by Cooper (1998) and Irujo (1986) and chapter nine of Liu (2008).

(Continued on page 6)

Incorporating idioms into your curriculum may seem like a daunting task because of the sheer number of idioms that exist in any language. It is unlikely (and unrealistic) to expect an ESL student to master the 5,000 idioms in the *Cambridge dictionary of American idioms* (Heacock, 2003). To approach the task, teachers and students should remember that L2 idiom learning is a lifelong process. Another important point is that by teaching idioms in class using some of the techniques mentioned, you are also providing your students with coping strategies for dealing with figurative language in general. Through a greater awareness of idioms, their literal meanings, and underlying conceptual metaphors, your students will be better equipped to “unpick” figurative language and make sense of it without teacher guidance.

References

- Biber, D., Johansson, S., Leech, G., Conrad, S., & Finnegan, E. (1999). *Longman grammar of spoken and written English*. Harlow, England: Pearson Education.
- Boers, F. (2000). Metaphor awareness and vocabulary retention. *Applied Linguistics*, 24, 553-571.
- Boers, F., Demecheleer, M., & Eyckmans, J. (2004). Etymological elaboration as a strategy for learning figurative idioms. In P. Bogaards & B. Laufer (Eds.), *Vocabulary in a second language: Selection, acquisition, and testing*. Amsterdam: John Benjamins.
- Cooper, T. (1998). Teaching idioms. *Foreign Language Annals*, 31, 255-266.
- Cooper, T. (1999). Processing of idioms by L2 learners of English. *TESOL Quarterly*, 33, 233-262.
- Erman, B., & Warren, B. (2000). The idiom principle and the open choice principle. *Text*, 20, 29-62.
- Gibbs, R. (1992). What do idioms really mean? *Journal of Memory and Language*, 31, 485-506.
- Grant, L.E. (2007). In a manner of speaking: Assessing frequent spoken figurative idioms to assist ESL/EFL teachers. *System*, 35, 169-181.
- Grant, L.E., & Bauer, L. (2004). Criteria for re-defining idioms: Are we barking up the wrong tree? *Applied Linguistics*, 25, 38-61.
- Heacock, P. (Ed.). (2003). *Cambridge dictionary of American idioms*. Cambridge: Cambridge University Press.
- Irujo, S. (1986). A piece of cake: Learning and teaching idioms. *ELT Journal*, 40, 236-242.
- Laufer, B. (2000). Avoidance of idioms in a second language: The effect of L1-L2 degree of similarity. *Studia Linguistica*, 54, 186-196.
- Liu, D. (2003). The most frequently used spoken American English idioms: A corpus analysis and its implications. *TESOL Quarterly*, 37, 671-700.
- Liu, D. (2008). *Idioms: Description, comprehension, acquisition, and pedagogy*. New York: Routledge.
- Simpson, R., & Mendis, D. (2003). A corpus-based study of idioms in academic speech. *TESOL Quarterly*, 37, 419-441.

Eve Zyzik is Assistant Professor of Spanish in the Language Program at the University of California, Santa Cruz. She has designed and implemented lessons for teaching Spanish idioms in the classroom.

Summer Workshops a Success

For the 13th consecutive year, CLEAR hosted workshops this summer, drawing participants from all over the United States—and a few other countries! Teachers of many different languages gathered in East Lansing to gain hands-on experience in a variety of topics.

Participants in three of the workshops learned how to incorporate technology in the language classroom. There was enthusiasm about sharing new techniques with colleagues, as one participant commented, “I’ll go back to my school and train my fellow language teachers on the new versions of Conversations and Audio Dropboxes [two of CLEAR’s free Rich Internet Applications].” Teachers also appreciated that their suggestions were immediately incorporated to improve the Rich Internet Applications tools. As another participant commented, “The best thing was that the instructor solicited input to improve the tools we were using.”

Another workshop focused on teaching culture in the language classroom, in which participants learned a number of pedagogical techniques from the perspective of language students. The theoretical foundation was built on with discussion of the ACTFL standards and the Common European Framework of Reference, but there was a lot of hands-on work as well. As one participant noted, “I liked how interactive it was, not just a lot of lecturing.”

Finally, participants in the language program development workshop were able to create plans to maintain or increase enrollment in their foreign language programs. Teachers appreciated the “real examples” and “step-by-step activities” and had plans to apply their new knowledge immediately. “We will now be able to write our proposal in a way that speaks to all [constituents],” one participant said.

Upcoming Conferences

CLEAR will be represented at exhibit booths at the following conferences this academic year. Stop by to introduce yourself and let us show you what we can offer for your language classroom.

We will be presenting sessions and/or workshops at some of these conferences as well!

- [Michigan World Language Association \(MiWLA\)](#), October 15-16, 2009, Lansing, MI
- [American Council on the Teaching of Foreign Languages \(ACTFL\)](#), November 20-22, 2009, San Diego, CA
- [Central States Conference on the Teaching of Foreign Languages \(CSCTFL\)](#), March 4-6, 2010, Minneapolis, MN
- [World Languages Day](#), April 17, 2010, East Lansing, MI
- [Computer Assisted Language Instruction Consortium \(CALICO\)](#), June 8-12 2010, Amherst, MA

Videos Now Available Online

In response to requests from local and national language teachers, CLEAR has made accessing several of its videos easier than ever. You can now watch the following videos in streaming format right on CLEAR's website. To save a video for later viewing or classroom use, you can also download each one as a free MP4 file. Videos available in this format include:

- *Foreign Languages: Doors to Opportunity* – The first part of this video is intended for use with middle and high school students of foreign languages. The second part is designed for K–12 educators, including teachers, guidance counselors, administrators, and parents. A free downloadable discussion guide accompanies the video and contains preview and postview activities to help educators in facilitating discussion of both parts of the video.
- *Test Development Video* – This video and companion workbook (available as a free PDF) are designed to assist language instructors who develop their own tests. Explanations of different possible test items are accompanied by a variety of examples. The video introduces basic concepts involved in language test development, while the workbook explains these concepts in more detail. This valuable resource supplies more than a thousand models for test items.
- *Instructional Guide for Use in Small Classes: African Languages* (video) – This video is intended for use as a training tool for new language teachers who may not be

familiar with the language teaching activities found in CLEAR's *Instructional Guide for Use in Small Classes: African Languages*, which is available as a free downloadable PDF. The video depicts three types of language learning activities: information gap activities, role plays, and text-based lessons. It also discusses topics such as maximizing the use of the target language and implementing appropriate error correction. Note that while African languages are the original focus of the guidebook, the activities can be implemented in any language classroom.

Language Resource Centers

CLEAR is one of 15 Language Resource Centers (LRCs) funded by grants from the U.S. Department of Education. The LRCs recently published a comprehensive booklet that gives information about the projects in which they are engaged as well as an overview of each individual LRC and some of its key initiatives. You can download the full booklet at http://clear.msu.edu/clear/otherlracs/lrc_broc_full.pdf, or simply visit CLEAR's website and click on the "Other LRCs" tab. You'll learn about numerous free and low-cost resources as well as exciting programs happening at LRCs around the country.

Get Help, Give Help

Are you using CLEAR's Rich Internet Applications? They are powerful and useful tools for enhancing your language classes. We host a discussion forum dedicated to sharing tips and information for getting the most out of the tools. Feel free to ask questions, answer others' questions, and share your experiences in using the tools. You've joined our community; now add your voice to the conversation! Go to <http://ria.clear.msu.edu> and click on the "forums" link.

Subscribe to CLEAR News!

CLEAR News is available in hard copy at conferences and workshops and in PDF online. Visit our website to download PDFs of new issues as they are published and to access all archived issues. You can also sign up to be notified via email when a new issue is available for download. To add yourself to our mailing list, click on "Contact Us" from our home page and then create an account for yourself.

CLEAR News

CLEAR News is a publication of the Center for Language Education and Research and is intended to inform foreign language educators of the Center's on-going research projects and professional development workshops, to report on current foreign language research and publications and their applicability to the classroom, and to provide a forum for educators to discuss foreign language teaching and learning topics.



**MICHIGAN STATE
UNIVERSITY**

A712 Wells Hall
East Lansing, MI 48824-1027

Nonprofit-Org.
U.S. Postage
PAID
East Lansing, MI
Permit #21