Effective CALL Pedagogy: Ten Suggestions for Teachers with Limited CALL Experience

These suggestions were fashioned in the spirit of Strunk and White's Elements of Style, *the classic style manual that defines concise. They offer pedagogical guidelines for implementing classroom activities. These suggestions don't discount competing views of experienced or inventive teachers but simply frame an integrative approach to CALL. Following these or any other "rules" matters less than their role in encouraging critical thinking about CALL pedagogy as a reinterpretation of conventional language classroom techniques.*

1. Focus on activities, not software titles
2. Wade in slowly
3. Teach
4. Appreciate richness of computing environment
5. Prepare and be patient
6. Don't let technology drive your class
7. Invest time in training and orientation
8. Pace your activities
9. Be a resource guide
10. Orchestrate communicative activities

1. Focus on activities, not software titles

Effective lab classes generally revolve around a well thought-out activity that involves content accessed via computers with stimulating student interaction in the target language.

Class Example

Many language classes have a skill focus. Think first about what *kind of activity* you want your students engaged in that provides exercise for that skill development then find a lab activity that supports that objective. Don't do it the other way around. If you're teaching a listening/speaking elective, for example, determine at least four things first:

- what kind of material you'd like your students to use (authentic or pedantic—usually determined by level)
- how they should engage it (cloze or comprehension questions, writing a response essay, or making a verbal response)
- do they work alone or collaborate in pairs or small groups
- how long do they have to complete it

Language teachers set up these types of activities routinely and are comfortable with them. The new factor in the equation added by holding the class in a CALL lab is primarily the means of delivery. Answer each of the questions above in the lesson planning stage and discuss their implementation with lab personnel or experienced CALL teachers a day or more before class.

Pitfalls for new CALL teachers

With a growing choice of language instruction programs (tutor applications, mostly) offering more and more dazzling capabilities, some teachers new to CALL might pass along their own enthusiasm about such a program to their students or concede to student expectations of multimedia dazzle and have them use such a program in class. Telling students to launch a particular program and work for n minutes is not a lab class—it's a study hall, which may well have a place in students' language learning, but probably not in a class where human instruction is expected. If this was how labs should work then they wouldn't require language teachers as much as technically proficient lab monitors. The problem isn't in using tutor applications to aid in learning a language, but when they're used. If students use these programs in class, then they're doing so in lieu of interacting with and getting instruction from the teacher they're paying for, amounting to poor instruction value. Students can use these programs in a self-study lab or buy them on the Web and use them at home, but they can't get a live teacher and other students to interact with at home.

Grammar practice, pronunciation, vocabulary, and test preparation applications, content programs, and other pedantic material (such as packages billed as "language systems" or "integrated-skills programs") demonstrate title-based not activity-based approaches. Most of these programs don't allow for adaptation, and an over-reliance on them may even contribute to a teacher's lack of confidence to construct or carry out activities where the computer is used in

class as a tool—a fossilization, if you will, of CALL development—allowing the assortment of programs available in the lab define what students do in lab class, rather than first determining a language objective for students then exploring ways to use computers to achieve this objective in an interesting, stimulating way.

Furthermore, rigid adherence to completion of the objective-type exercises (multiple choice, cloze, etc.) in these programs as a measure of lab activity discounts their usefulness in providing practice and reinforcing forms and gives a sense of progress in the simplest quantifiable terms. Such activities (sometimes derided as "drill and kill"—repetitive drills informed by a behaviorist model of language instruction) by themselves may well fail to inspire learning, instead reducing language study to a monotonous task completed for its own sake. If activities aren't interesting and challenging to teachers, they aren't likely to be to students either. See No. 9 for the proper role of tutor applications.

2. Wade in slowly

Teachers new to CALL are often put off by the perception that they must be tech gurus, that they must know how to do everything in order to do anything. They don't.

Class Example

Most teachers are familiar with word processing, E-mail, or Web browsing. Start with one of these. Text-based activities—reading, grammar, vocabulary, and writing—generally offer lower technical demands than those involving audio, video, media requiring Web plug-ins, production activities, or online interactive activities. Many language lab classes make use of a word processor. Fortunately, even people with minimal exposure to computers have likely used one, and they are all fundamentally the same. Microsoft Word, AppleWorks, Nisus Writer, WordPerfect, etc., share the same basic functionality likely to be used by language students. Some commands may appear in different menus, but they all function the same once they're found, much like driver controls in cars—windshield wipers, cruise control, trunk release—appear in varying locations but work the same in any car.

Writing classes in the lab, furthermore, readily expand into other skills. Incorporate speaking and listening, for example, by having students interview each other and write short biographical pieces. These documents can later include pictures and other information to illustrate the class experience, eventually becoming part of a class book that students take home—even involving a desktop publishing component as well, if desired. Such activities—teamwork, interviewing—also facilitate the social nature of language study. Start simple; build in complexity in manageable steps and only as necessary.

Pitfall for new CALL teachers

Wade in slowly with simple activities that can be expanded—explore these thoroughly before moving on to something else. Look to colleagues for ideas of what works in the lab, especially activities involving procedures not overly technical or involved. Don't rely on lab personnel to simply make a smorgasbord of application choices available for your class; many will be beyond your skills at first or inappropriate for other reasons (such as tutor applications).

3. Teach

Lab class should provide human instruction time and value to students.

Class Example

A lab teacher should be quite busy:

- circulate
- talk to each student
- look at what they're doing onscreen
- encourage students to cooperate and help each other
- make sure they're using the target language
- keep abreast of exactly what's happening in class and who might need help
- let students know that they're not on their own

Questions represent a communicative activity exercising students' speaking, listening, and vocabulary skills. The nature of most lab work, where students work individually or in pairs or small groups, is ideally suited for teachers to interact one-on-one with each student or group, providing more individual attention than is possible in the lecture-discussion class.

Pitfall for new CALL teachers

Lab class isn't a time for computers to baby-sit students or for the teacher to sit at a computer working on other class preparation, doing E-mail or some other business unrelated to actively managing the current class activity.

4. Appreciate richness of computing environment

The means to the lesson is a lesson. If the computers students use in class have a localized version of the OS[1] and applications—where the menus, toolbars, dialog boxes, etc., are in the target language—then the computer environment itself, the interface, provides stimulus for practical language development. In this ideal setup, the computer becomes an immersion environment where a student works entirely in the target language. The student must understand the language used in this environment in order to function, and that understanding is reinforced by repeating actions. The complexity of this environment frequently leads students to seek help, either from the teacher or, preferably, from a classmate, thus the importance of pairing students up or at least seating them according to unlike L1s. Pairs, if seated adjacent, might work better than groups because they can communicate without leaving their computers. Ideally, in addition to not sharing an L1, they should have complementary computing skills—that is, pair the know-it-all with the neophyte.

Class Examples

Use versions of the OS and applications that are localized to the target language. So if you teach French in Turkey, use the French version of the OS and applications, such as the word processor and Web browser. The target language should surround the student, his eyes and ears. In an ESL course on Web development, for example, students are likely exposed to more new vocabulary in the course of discussions and activities than they might be in a course with "vocabulary" in its title. Although some of the terms have primarily technical applications, most are common English words and expressions used in contexts with many other analogous uses. Talk about the derivation of terms and their less technical uses. For example, when a Web browser renders a background by *tiling* the background image, compare it to tiling a floor, repeating a small unit in a predictable pattern to cover a large area. Similarly, before we can cut or copy a word or sentence, we select it, or *highlight* it with the cursor—that is, make it stand out as the highlight of a vacation stands out in our memory.

Use the target language to teach the relevant computing skills required by your lab activities, and beyond, as language through content. For example, use the target language to discuss how to use the computer, to access resources, to carry out basic functions, such as printing, saving, accessing network servers, formatting papers and business letters, working with multiple documents or applications, navigating the desktop environment of the OS, recovering from problems, etc. These computing skills will serve students after your class in their continuing education, work, or professional development—a strong motivating factor beyond language learning in your class. In the old analog lab, your students left with the practical ability to use a Walkman. They leave the CALL lab computer literate.

Pitfall for new CALL teachers

In foreign language teaching environments where all students speak the same L1, pairing or grouping risks having students speak their L1. A teacher circulating constantly through the class can keep a check on language use. Otherwise, like-L1 environments may see fewer activities where students collaborate with each other and more where they interact with the target language material individually.

5. Prepare and be patient

Know everything you ask your students to do. Be familiar with applications you have students use so that you can answer questions knowledgeably. Work through every activity in advance and anticipate what problems students might encounter. This familiarity is as much the teacher's responsibility as knowing other materials used, such as textbooks.

Class Examples

Have a backup plan, especially for online activities. You must expect that your online resources (Web sites) will be periodically unavailable or that your entire Internet or network connection may go down. Have an activity planned, in reserve, that uses *local* resources (i.e., on the computer's hard drive or a CD or DVD), or no computers at all. Otherwise, your class is vulnerable to a host of technical calamities lying in wait.

Teach students—the younger of whom may have an unjustified faith in computers (in contrast, perhaps, to the teacher)—to head off loss of work by saving early and often. Teach them to be compulsive savers, in fact, with the keyboard shortcut of **Ctrl-S** (PC) or **Apple-S** (Mac). With a good saving routine, a computer or network crash will not result in a chilling loss of original work.

Pitfalls for new CALL teachers

Computers are often unnecessarily complicated and intolerably unstable. That's a fact. Complaining only exacerbates it. When technical problems arise, focus on a "workaround" and salvage the class. Wonder *why* it hap-

[1] Operating system, such as Mac OS X, Windows XP, etc.

pened later, not on students' time. Don't criticize the computers or facilities in class or blame technical personnel in the lab (even if warranted). It's bad PR. Students sense a teacher's frustration with technology and may lose faith in his technical competence, his decision to hold the class in the lab in the first place, and the program's resources generally. Labs represent an investment in the quality and effectiveness of your program. So while you probably can't eliminate problems, you can take steps to anticipate them and prepare contingency plans.

Under-prepare at your peril: incompetence in the lab reflects on your competence as a teacher generally—to your students and faculty supervisor. You would prepare and be familiar with material for a class outside the lab. In the lab, preparation is even more important.

6. Don't let technology drive your class

Don't use technology for technology's sake, because it's there, or let it become an end in itself instead of a means. Recognize the difference between taking advantage of a stimulating language learning environment and letting it dictate what you do. To reiterate a theme from No. 1, think of an interactive language activity first, then look to technology to enable it, if possible.

Class Examples

One of the first abilities many teachers expect of a CALL lab is a holdover from the analog lab: the student intercom function. They want students, even those sitting next to each other, to be able to communicate verbally through headphones attached to the computers. Forget the technical issues involved for a moment (but know they exist). How would this ability enable a richer language experience than having these students talk face-to-face? "We did it in the old lab," doesn't answer the question. One of the few valid purposes of such a capability that I've heard of involves an activity simulating telephone conversations, which, if this is important to the teacher, does answer the question above.

Some language teachers of Web page authoring classes argue that we should teach students in these classes HTML (the code of Web pages) because this knowledge *may* help them somewhere down the line. Perhaps. But is it an appropriate choice for a *language* class? Students may pick up a little vocabulary here and there among the HTML tags, attributes, and values, but that answers the wrong question for a teacher to ask. *Any* language method will teach *some* language, but the key is to find the methods that *most effectively* teach language to people who then have the ability to use it.

Nicenet

Nicenet's Internet Classroom Assistant (ICA) is a free Web resource for teachers and students. Teachers can create class groups and manage class communications similar to those offered by fee- or subscription-based courseware services (WebCT, CourseInfo, etc.). Nicenet offers conferencing (a bulletin board for students in a class, where they can post messages on a topic), personal messaging, document sharing, scheduling and link sharing (www.nicenet.org).

Although not providing an adequate substitute for an absent teacher, technology can, nevertheless, salvage a class otherwise cancelled. If you set up a Web-based communication forum for your class, such as with courseware (e.g., WebCT or CourseInfo), a custom Web site, or an education portal, such as Nicenet, then you can have students work on a pre-defined activity in the lab in your absence. Ideally, the absent teacher would be able to communicate with students during class, both to take roll and to provide assistance, by a synchronous chat, bulletin board, or simple E-mail group.

For example, I observed students working in an ESL lab class in Boston when their teacher was attending a conference in Amsterdam. The students were instructed to go to the teacher's Web site at the start of each lab class to read the assignment for the day. On the day of his absence, they were instructed, on this assignment page, to login to a private text chat room set up for the class, where the teacher greeted them from a cyber café (where it was 9:00p.m.). He led them through a discussion of art on display at the time at the Rijksmuseum. While they viewed the images in a separate browser window, he directed questions at individual students. The entire text of the chat was logged by the program and later printed by the teacher for discussion. In addition to observing this experiment in distance learning (distance teaching, really), I assisted students with technical questions, assistance that could otherwise be provided by a lab assistant or technically proficient student in class—the latter an example of cooperative learning.

I later used the same distance teaching technique for my class in Boston through a chat interface while at a conference in Turkey. The students had been creating their own Web pages. We critiqued each student's work in one browser window while referring to another, which displayed a student's pages. Attendance at both of these distance teaching classes was consistent with the semester average, and participation among otherwise shy students was impressive. Thus we used technology to achieve a teaching objective not simply because that capability existed.

Cyber café

A coffee shop where patrons can also rent time on a computer, usually for Web browsing or E-mail. Cyber cafés, or Internet cafés, didn't catch on in the U.S. to the extent that they have abroad, especially in countries with high telephone rates. They cater especially to tourists and business travelers, among others.

Pitfall for new CALL teachers

While technology enhances many activities, in terms of access, interaction, and teaching language through content, it's not a panacea for all language learning challenges and may fail to provide the most effective environment in certain cases or when the teacher does not carefully choose and plan activities.

7. Invest time in training and orientation

Take time to teach students how to use their tools, their computers. Taking the time to walk students through the use of a new application or activity as a class will save time, because it's easier to say something *once* to the class before an activity than to individually instruct *each* student during an activity. Time invested up front on orientation will pay off with less confusion later that must be addressed one student at a time. Use a show-and-tell method with a projector, if possible. Don't assume that students know computers because they're young or that they all know how to use each new program. They don't. As discussed in No. 4, this instruction is a listening comprehension activity in itself.

Example

A lab administrator could head off problems relating to no or inconsistent lab orientation by scheduling *all* classes for orientations by lab staff at the beginning of the semester. Large programs might benefit from creating an orientation video for students, one perhaps digitized and made available on the computers on a self-access basis at the beginning of the semester. A presentation slideshow is another option. Such a video (or presentation) could be produced in the lab with digital video footage, still shots, screen shots, titles, and voice-over narration. Students could watch the video at their computers, replaying segments as needed, and complete a worksheet of salient points. A lab assistant could discuss the answers with the group and respond to any other questions as well.

Pitfall for new CALL teachers

Students with extensive computing experience may bring a false sense of confidence into the lab, skipping orientation sessions or paying little attention to instructions and directions in the lab. These students may fail to appreciate that their knowledge of computers bears little relevance to the specific knowledge they need about a particular lab. They need to know about the specific procedures and operating environment, about logins and network resources, and about accessing what might be a great variety of material maintained for their language learning. Labs also have a right to expect students to know and respect the rules of using the facilities so that they can be maintained for all students.

8. Pace your activities

There are two issues relating to pace:

Students finish at different times. Allowing students to complete activities at their own pace is part of the beauty of CALL. The challenge comes not with students taking too long to complete tasks but with those finishing before the others. What to do with them? Have *buffer* activities ready for these students—anything providing some language learning stimulation of short or variable duration and requiring little or no direction.

Transitioning from one activity to another takes time. Choose your activities carefully for how much lab class time they will occupy, noting that many lab activities span several classes. Students are slow to change gears when they're at the wheel (that is, the mouse), so segue from one activity to another without abruptly interrupting their momentum. New activities must overcome the inertia of the preceding one while addressing the technical overhead of the new one. Allot more time to activities in the lab than you would in a conventional class and be careful of rushing into another activity without sufficient class time to finish it. Instead, think of devoting the whole lab class to one activity, focusing on it, and perhaps completing it. This approach differs from the less interactive conventional audio lab where we needed to mix things up to keep students awake.

Class Example

The more complicated the activity, the greater the spread of finishing times among students will be. While buffer activities are the easiest to implement and provide flexibility, there are other options to try, depending upon the students, level, and environment:

- Ask those finishing earlier to help a neighbor, though this may only work out effectively with students exhibiting leadership or helpfulness; otherwise, it's not much of an incentive for more proficient students.
- Ask early finishers to help with material preparation or to follow up on some tricky question not fully answered in a class discussion—an assignment especially attractive to students if the answer is to be found on the Web.
- Have multiple projects in progress at any one time to provide work for these students to alternate between.
- Have students manage and keep track of their lab work with an activity log, one that gives them direction for the next or buffer activities.

Pitfall for new CALL teachers

While finishing times for activities may differ among students, the *relative challenge* may still be the same for students of varying proficiencies; that is, one student may take longer than others to complete a listing comprehension cloze activity because the level of the exercise could have presented more of a challenge for him. He didn't necessarily do less work. A student who finishes earlier then moves on to complete another of the same type of activity, likewise, can't simply be seen as doing twice the work, because it was, perhaps, easier for her.

9. Be a resource guide

A lab teacher's skill is largely exhibited in her ability to choose appropriate and effective materials and activities and to teach access skills and epistemology, particularly of the enormous Web resources. As a lab teacher, you are the librarian of the lab in that it is partly your responsibility to introduce students to the many resources a lab has to offer and which are appropriate for their needs, whether you spend much time using them in class or not, in fact, especially for relevant materials you won't have time to use in class. Your role in the use of a content program, such as a grammar or pronunciation program, for example, is to *diagnose* individual student needs and *assign* the appropriate area to focus on for each. They can then work through many of the activities on their own in a self-access lab.

Many programs suffer from some degree of poor instructional design or otherwise lack intuitive navigation and function. You must bridge the gap between the value a program has to offer and a student's ability to tap into it by understanding the procedures for using it and being aware of the resources and features available.

Class Example

A teacher of a test preparation class (such as a TOEFL[2] class), might be inclined to have students use one of many available computer-based test (CBT) preparation programs in lab class. While this use of lab time for tutor programs defies suggestion No. 1, there is value in *introducing* students to the resource and encouraging them to work with it *on their own time*, either on their own computers or in a self-access lab. Preview these programs to learn exactly how they work including, for test prep software, whether a test can be paused and resumed later or whether results include explanations of correct and incorrect responses and if they can be printed. Demonstrate for students, ideally with the use of a projector, how to use and navigate the program, point out its strengths and weaknesses, including glitches that might waste student time.

10. Orchestrate communicative activities

Some language teachers, particularly second language teachers, see language teaching as at least as much of a performance art as an academic discipline. This notion—sure to stir opposition—holds that a CALL teacher's job is to orchestrate communicative activities that are student-centered. In a CALL lab, students have an expectation of hands-on work and active participation more than passive listening, as would be the case in a lecture. They are, in other words, perhaps more predisposed to *doing* something. Give them instructions for an activity and let them have at it. It's what they expect in this student-centered, student-empowered environment. Develop open-ended activities where they create as much as possible and are not restricted to a narrow, pre-defined model. And pairing proves critical here, because if they are at least speaking the target language (in unlike L1 pairs, if possible) then they are getting valuable speaking and listening practice in the process regardless of their progress on the activity itself.

Class Examples

Using the Socratic method in class, you can demonstrate how useful students can be to each other, how they should look to each other to answer their computer or activity questions first. Why answer a student's question when you can get another student to do it for you? Make those kinds of connections, create those kinds of interactions just as you try to do in any class. It takes more finesse to facilitate understanding through productive query and interaction than it does to simply be a font of knowledge. But teachers know

[2] Test of English as a foreign language.

that already.

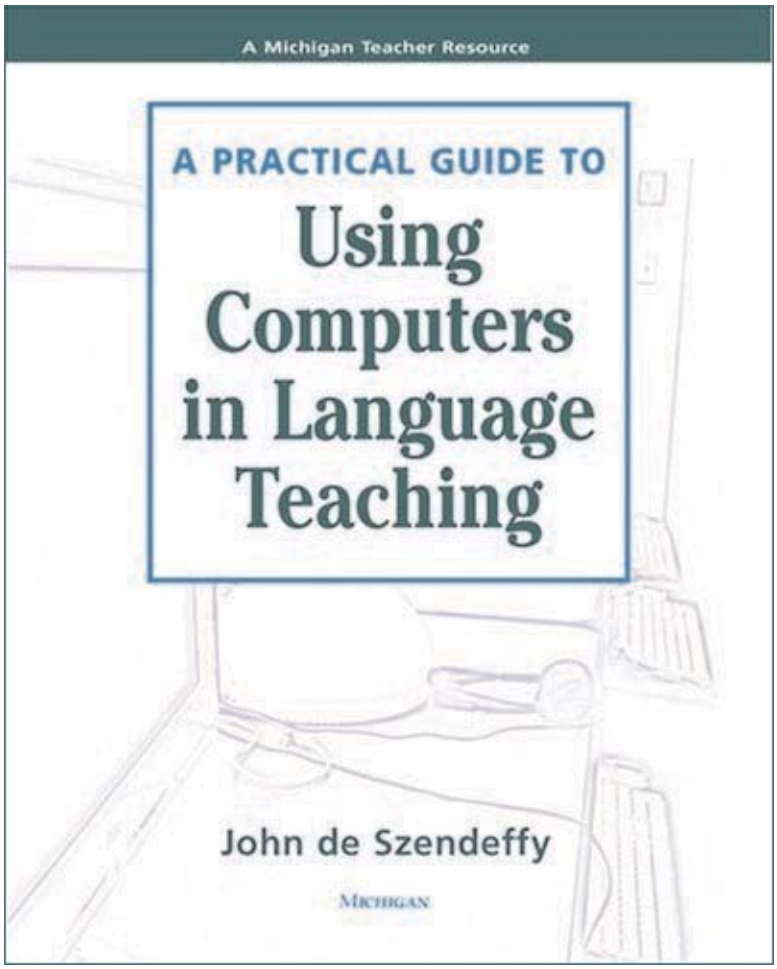
Pitfall for new CALL teachers

Getting students' attention in a lab class can be difficult. You're competing with the computer in front of each one of them. Make announcements and give any lecture-type instruction at the very beginning and keep it short. If you lab has the ability to lock students screens temporarily, use it but do so judiciously (and appreciate that students may be gritting their teeth till they can get back to the computer).

Assessing Lab Effectiveness

How do you know that your labs are working? Is there a special test to indicate progress? How do you know your teaching is effective otherwise? Assessment is the same: improved ability and inclination to communicate in the target language, higher test scores, good attendance, etc. Keep in mind that in most situations the lab component (not including self-access time) makes up a small percentage of a student's language instruction time overall.

Also, look at your attendance in lab classes versus other classes, listen to what students say about the lab in their evaluations, and try to pick up what they're saying to each other about the effectiveness of your lab.



www.amazon.com
www.press.umich.edu/titleDetailDesc.do?id=97662