LINGUISTICS DEPARTMENT - STANFORD UNIVERSITY

An Invitation to CALL

Foundations of Computer-Assisted Language Learning

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Unit 7: CALL Teacher Education, Professional Development, and Learner Training

OVERVIEW

This unit covers three intertwined areas: teacher education, professional development, and learner training. All of these involve the development of knowledge and skill in the use of technology in the pursuit of learning objectives. By *teacher education* we refer primarily to both pre-service and in-service education of a formal nature found through degree and certificate programs, individual courses, and workshops viewed from the perspective of the educator. *Professional development* may involve some of the same formal mechanisms but also many informal ones and is regarded mainly from the viewpoint of the practicing teacher. *Learner training* refers to the process through which the teacher or other instructional entity (software, video, webpage, etc.) guides students to become more effective users of technology for language learning.

TEACHER EDUCATION

It is presumed that most of the users of *An Invitation to CALL* will be primarily interested in using the concepts and content of this resource to inform technology implementations in their own classes. However, it is often the case that teachers who know more about CALL than their local colleagues begin to take on a role, formally or informally, of a teacher educator. In fact, the TESOL Technology Standards for Teachers recognize different levels (basic and expert) in the performance indicators of the various standards. Hence, this section may be of interest even to those who don't see themselves in that role yet but may be moving into that higher classification.

As noted in Unit 1, Mike Levy and I (Hubbard & Levy, 2006) have developed a role-based framework to delineate the field for the purposes of CALL teacher education. Specifically, we propose two types of roles for individuals engaged in CALL: institutional and functional. Institutional roles include classroom teachers, both pre- and in-service, specialists of various kinds (language lab managers, language skill area specialists, etc.), and professionals (those whose career centers on CALL). Functional roles include practitioners, developers, researchers, and trainers.

The focus of the present teacher-oriented course is illustrated in Figure 1 below, where these institutional and functional roles can be seen as two dimensions in a matrix. As the shading suggests, the focus is primarily on teachers as practitioners, making effective use of what others have produced in the way of materials and lessons. The secondary focus is on teachers as developers, not just of CALL software but of language learning activities and tasks that involve the computer. The functional roles of researcher and trainer are touched on as well, though less centrally. Note that pre- and in-service teachers are not explicitly distinguished for our purposes. However there are a number of differences that can be notable, in particular the in-service teachers' ability to make immediate judgments regarding the relevance--and feasibility--of a given CALL application in their specific settings.

	Practitioner	**Developer**	**Researcher**	**Trainer**
Pre-service classroom teachers	X	X	X	X
In-service classroom teachers	X	X	X	X
CALL specialists (many types) (expert/adjunct)	X	X	X	X
CALL professionals (expert/adjunct)	X	X	X	X

Figure 1: A role-based framework for CALL education. Rows represent institutional roles (often linked to job titles and descriptions) while columns represent functional roles.

As we have gone through this course, we have been filling in some of the X's in the shaded cells above. These cells can be seen as representing two types of knowledge and skills. The first is technical; however, as important as this is, we have only been able to touch on it occasionally. As noted in the introduction, this course assumes a basic comfort level on the computer and

either the willingness to learn more on your own or the availability of technical support to get help locally.

The second type is pedagogical knowledge and skills, the ability to take the ideas presented here and embed them effectively--in an environment involving technology--in the process of achieving the learning objectives for your language class. Integrating this technical knowledge with pedagogical for language teaching and learning can be seen as an instantiation of what has been called "technological pedagogical content knowledge" (TPCK or TPACK, an extension of Shulman's concept of pedagogical content knowledge: see http://www.tpack.org). Although this is the main direction for our course, as it is a survey course, the knowledge and skills you will be introduced to will be broad but rather shallow. It is anticipated that with this foundation you will be better prepared to engage in additional formal education in this area or to continue venturing forth on your own.

Teacher Education Options. If you are looking ahead to a Master's or certificate program, it is worth checking to see which ones include technology training and what the nature of that training is. CALL degrees or specializations are available at some universities: see https://www.cut.ac.cy/studies/masters/master-programmes/lce-gr-call/?languageId=1 for an example of an online program available to teachers worldwide. In finding a suitable CALL training opportunity, it is important to find one that fits your needs depending on your existing level of computer expertise. Some certificate programs and workshops in particular may focus on *how* to use the computer rather than *why*. It's best to have both. Both CALICO and EuroCALL have special interest groups devoted to teacher education.

Teacher Standards: One way of improving especially the technical competence of teachers is through general proficiency training in this area, and this is also true of learners (see below). The International Society for Technology in Education (https://www.iste.org/standards/for-educators) has promoted both teacher and student standards (primarily focused on the US K-12 constituency). As noted above and in previous units, TESOL has also produced a technology standards framework for students and teachers aimed internationally at all levels. Both organizations acknowledge the responsibility of teacher education programs and educational institutions to ensure students and teachers meet these standards. A description of some of the TESOL Standards and how they were developed is online at http://www.j-let.org/~wcf/proceedings/d-025.pdf, and the Standard themselves are available at through TESOL at http://www.tesol.org/docs/books/bk_technologystandards_framework_721.pdf or in an expanded version at http://www.amazon.com/Tesol-Technology-Standards-Description-Implementation/dp/1931185727. The teacher standards are relevant for both initial teacher education and in-service professional development.

NOTE: *Language Learning & Technology* has a 2015 special issue on Teacher Education and CALL: http://www.lltjournal.org/collection/col_10125_45829.

PROFESSIONAL DEVELOPMENT

Teacher Goal 4, Standard 2 of the TESOL Standards states: "Language teachers regularly reflect on the intersection of professional practice and technological developments so that they can

make informed decisions regarding the use of technology to support language learning and communication." Goal 1, Standard 3 says: "Language teachers actively strive to expand their skill and knowledge base to evaluate, adopt, and adapt emerging technologies throughout their careers." Together these standards indicate that attention to CALL is a central part of ongoing professional development for those already practicing their profession, not just during the time when teachers are working toward degrees or certification. It can refer both to maintaining existing levels of professional expertise and more importantly to expanding existing areas and gaining new ones. This section will discuss ways that teachers can continue developing their CALL proficiency once they have left the support of a formal teacher education program structure.

Besides proceeding entirely on their own, avenues for teachers to engage in professional development include online resources (like this one), communities of practice, professional organizations, workshops and classes, readings, projects, and collaborations.

Online resources. We have seen a number of useful resources for learners throughout this course, but there are a number that are valuable to teachers as well. Russell Stannard provides a good example of these with a series of free videos on how to use various ICT applications for language teaching: http://www.teachertrainingvideos.com. Nik Peachey's blog also has useful material: http://nikpeachey.blogspot.com/.

Communities of Practice. While we have assumed here that you can learn about CALL through course work or self-study, another way is to interact with other language teachers who are similarly on their own. Communities of practice involve practitioners who support and learn from one another. An example is www.learning2gether.net an outgrowth of an early CoP, the Webheads (http://webheadsinaction.org/) community. Elizabeth Hanson-Smith provides a partially annotated list of community of practice resources at http://webpages.csus.edu/~hansonsm/CoP_Resources.html.

Professional organizations. Professional organizations like TESOL, IATEFL and ACTFL support technology integration and offer presentations and workshops at their conferences. Various government sponsored organizations like CARLA (Center for Advanced Research in Language Acquisition) have resources as well: http://www.carla.umn.edu/technology/modules/. A list of some leading CALL-focused organizations appears in the supplement of this course: http://www.stanford.edu/~efs/callcourse2/CALLX.htm. Note that these organizations typically have newsletters or academic journals to support professional development as well.

Workshops and classes. Besides the conference-centered workshops and classes, professional organizations and other institutions offer face-to-face or online training for professional development purposes. For example, TESOL has an annual online "electronic village" consisting of 5-week technology-focused courses offered free to both members and non-members. They also have a fee-based program for a certificate in online English teaching: https://sites.tesol.org/MemberPortal/Events/2018/PL18_PPOL4/TESOL-Event-Detail?EventKey=PL18_PPOL4.

Readings. We have already seen links to a number of online journals and to the rich ICT4LT site for professional development in CALL (www.ict4lt.org). There is an enormous amount of valuable information about CALL, available in both formal and informal formats. A few hours of reading about the research results or just personal reflections of practitioners on a topic of interest could save a lot of frustration later on. If you aren't sure where to find these readings, 1) become an expert with Google or whatever your favorite search engine is, so that you are more likely to find what you're looking for quickly and 2) try posting to forums or listservs through professional organizations and communities of practice.

Projects and collaborations. Perhaps the best way to develop professionally is to have a specific project in mind that integrates technology. As teachers, we already know the value of project-based learning for our students. By engaging in a specific project, rather than just looking on passively at what others are doing, the learning becomes situated and is likely to be more effective. Projects can be done independently, but projects with either local collaborators or online ones can be helpful both for the combined expertise and for the social contact they offer. It's easier to be motivated when you aren't working by yourself.

For more details, see my article on "Technology and Professional Development" from the *TESOL Encyclopedia of English Language Teaching* (2018), available free at the time of this writing at http://onlinelibrary.wiley.com/doi/10.1002/9781118784235.eelt0426/full.

Whatever the path taken, 21st century language teachers have to be prepared for ongoing professional development throughout their careers. As we will see in Unit 8, technology marches on--it's better not to be left in the digital dust.

LEARNER TRAINING

Throughout this course, we have referenced various points from the TESOL Technology Standards for Teachers. It is worth noting that TESOL also has promulgated learner standards. The three overarching goals for the TESOL Technology Standards for Learners address 1) foundational technical skills and knowledge for a multilingual world; 2) socially and culturally appropriate, legal, and ethical use of technology for language learning; and 3) effective use and critical evaluation of technology tools for language learning. Institutions, teachers, and students share the responsibility of meeting those standards, but teachers especially need to understand how the standards connect with respect to specific class objectives, especially when learners are working on their own.

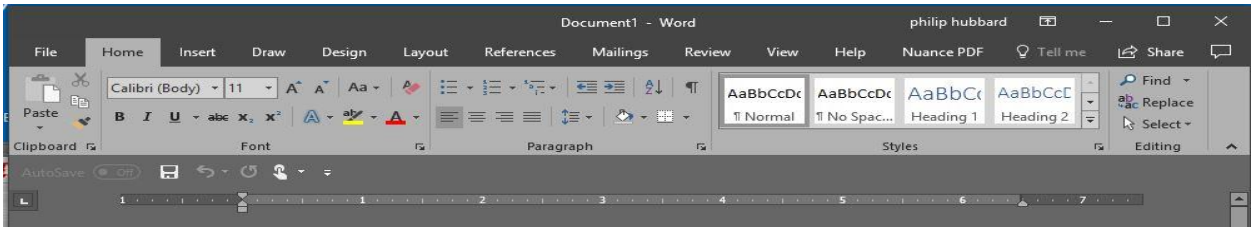
CALL has given us some amazing possibilities for improving language learning. However, these possibilities create a problem. Absent a teacher, students using computers are typically given more control over their own learning. Due to the newness of many computer environments (for example mobile and online gaming) and the range of choices in many CALL applications, they are arguably unprepared to take on this responsibility. The result is that students may not use the computers in ways that are effective for achieving language learning objectives, and it is even less likely that they will use them in ways that are *most* effective.

One way out of this dilemma is to spend time training learners in dealing appropriately with this new environment. In the process, we may be able not only to help them with their CALL use, but also help them in general to become more effective autonomous learners. Surprisingly, this is not a well-developed area of CALL. However, it is important enough in my experience to warrant significant attention.

Before continuing, let's consider three alternatives to CALL learner training...

One solution is to try to build software in such a way that it adapts to the learner on a number of different levels: language proficiency, computer proficiency, learning style, topical interest, motivational type and intensity, and so on. This was an early promise of CALL software; however, arguably we have not even come close to realizing such a program, and the degree of software-directed adaptation remains low or non-existent in currently available materials.

A second alternative is to take the philosophical position that learners have a right to self-discovery and that left alone they will naturally move to the strategies that work for them and that are consonant with their learning style. This would mean that given a tutorial program with a set of help options, they would make use of the ones that are most efficacious for them and ignore the others. It seems highly unlikely that this would be the case for most students. For example, you probably know how to use *Microsoft Word* (or some similar word processing application). How many of its features do you *really* know how to use? Open *Word* now and look at the top level (Word 2016 for Windows appears below, but almost any feature-rich piece of software will suffice). For example, do you know what's under "References" and "Mailings"? Do you recognize that "Nuance PDF" is an add-on?



If you open those menus and find some features you are uncertain about or never knew existed, this is a good demonstration of how hours (hundreds of hours in some cases) of contact alone with a piece of software will not automatically lead to efficient use. (By the way, if you already know all this stuff, you're in the minority). Evidence that a high percentage of today's university students do not have the skills they need to use computers effectively for language learning can be found in Winke & Goertler (2008).

A third alternative is to acknowledge that learners would profit from training but that it's just too much trouble to train them since it obviously takes a lot of time away from other aspects of language learning and there's no guarantee it will be successful. This may indeed be the case in some instances, but this should be determined on a case by case basis, using at least a rough cost vs. benefit analysis.

For a more elaborate set of set of supporting arguments, see my paper "Making a Case for Learner Training in Technology Enhanced Language Learning Environments": https://web.stanford.edu/~efs/LT-CALICO-CC.pdf, (2013) *CALICO Journal 30*(2) (licensed under Creative Commons: see https://creativecommons.org/licenses/by-nc-nd/3.0/).

TECHNICAL TRAINING

Let us proceed under the assumption that it is worth the trouble to do at least some training. What do we need to do? Here's an example.

Technical training: controlling speed on the media player. First, download the VLC media player: go to www.videolan.org/vlc/. It's free, though you can donate to them if you wish. They have versions for both Windows and Mac, as well as other operating systems.

1. Load the video into the VLC Player, using the Media menu. It's best to use videos you have already downloaded. You can also try to use "Open Network Stream" if you have a URL for direct streaming. If you don't have the URL handy, right click on the video screen and select "properties" to find it; alternatively, for Flash videos (now rare due to security issues with Flash) you may be able to get it by using View > source in your browser and searching for "flv". Sometimes (in fact, increasingly), you just can't find it...

2. Note that the speed control is easy to use (see the red circle below). I recommend using it around 80% speed--certainly no slower than 75%. Besides helping with listening, I recently showed a student in a presentation class who was speaking too quickly what he would look and sound like if he slowed down, using a video of his own presentation--it was a breakthrough for him.

Note that you may need to click on "status bar" under the "View" menu to get the control.

Although some learners may be aware that media players have play speed controls, in my experience many, if not most, do not know this. The VLC media player also has "hot keys" for jumping forward and back instead of using the slider. For example, on PCs at least, using Shift + back arrow jumps back 3 seconds--a very valuable feature when listening to audio or video for language learning purposes.

3. Regarding speed controls, some major resource sites now have built-in speed controls. YouTube, for example, has a 75% speed option (as does the TED website) that is useful

for language learners to gain them more processing time for connected speech; however, they need to know it exists and where to find it

PEDAGOGICAL TRAINING

In a 2004 paper (Hubbard, 2004), I make a case for giving training not just on technical aspects but also on pedagogical ones, that is, how to use the tutorial software or tool effectively to meet specific learning objectives. To this end, I offer a set of five principles for learner training, summarized below.

1. **Experience CALL yourself.** Try a piece of CALL software (like https://www.duolingo.com/) for a language you don't know, or visit a chatroom for a language you are not fluent in. This was the recommended assignment for Unit 1. The assumption here is that by knowing what it's like from the learner's side, you'll be able to give better advice.
2. **Give learners teacher training.** Let them know some of what you know if they are to become more independent. Help them develop a "language learning approach" that is consistent with what you consider a valid language teaching approach. In particular, try to give them practice with linking the procedures and strategies they use with software, online tasks, and CMC activities to specific language learning objectives.
3. **Use a cyclical approach.** Teach a bit at a time. Don't just have a training session at the beginning and think your job is done. If anything, let learners "play" awhile with the application so that they have some familiarity with it before formal training begins. Learning (both technical and pedagogical) should be incremental but also include plenty of recycling and reviewing key concepts and strategies.
4. **Use collaborative debriefings.** Get learners to discuss their experiences, successes and failures with the CALL tasks and software in pairs or small groups. Don't just make the instruction one-way from you. Having learners talk about lab experiences at the end of a session helps consolidate it, and discussing their individual experiences (at home or a drop-in lab) at the following class provides a way of avoiding the sense of isolation that comes from working on the computer alone.
5. **Teach general exploitation strategies.** Show learners ways to use software to make it easier if it's too hard and harder if it's too easy, as well as how to mine the material for uses different from those intended by the developer. For example, many CALL tutorial exercises involve multiple choice. By teaching learners to resize windows so that the list of possible answers is hidden, the question becomes both a more challenging and a more natural open-ended one. Learners similarly need training in how to use text support (transcripts and captions) effectively for audio and video so that the language learning objective is supported. For CMC activities, some training in the rationale for and techniques of effectively negotiating meaning is valuable. In general, learners need to build a repertoire of strategies that they can use to realize the language learning potential in dedicated CALL software, CMC tasks and online language material.

Of course, in order to be effective at training students, it is necessary to thoroughly analyze the software, task, or activity you are assigning. You need to be sure that *you* can make the

connections between given actions and learning objectives before you can expect your students to do so on their own.

An updated version of this framework has also been developed. It acknowledges *three* domains for training instead of two--technical, strategic, and pedagogical--by moving some of what was previously considered pedagogical training to the more commonly recognized area of strategy training. See www.j-let.org/~wcf/proceedings/d-060.pdf for a brief description of that model. The main idea is that technical training lets students know *how*, strategic training lets them know *what* and *when*, and pedagogical training lets them know *why*.

LEARNER TRAINING MATERIALS: Examples of materials used in learner training can also be found at my advanced listening website: www.stanford.edu/~efs/693b. A description of a learner training project at a community college ESL program can be found here: http://www.j-let.org/~wcf/proceedings/d-009.pdf.

SUGGESTED ACTIVITY: Go to a website like www.esl-lab.com or www.elllo.org. First, familiarize yourself with the main parts of the site (or all of it). Then try to determine 1) what basic technical training students might need to use the site effectively; 2) what more advanced technical training would be helpful; 3) how strategic and pedagogical training would connect to this, both site-specific and generalized; 4) finally, how might you "teach" this information to them.

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