

CTE/CALL Resource List for

Online World Language Instruction Training and Assessment: An Ecological Approach

by Carmen King Ramirez, Barbara A. Lafford, and James E. Wermers

The following list contains professional resources for both CALL Teacher Education (CTE) and the field of Computer Assisted Language Learning (CALL).

Professional Resources for CALL Teacher Education (CTE)

Professional resources to assist with CTE training take the form of publications, information on special interest groups, and a list of CALL graduate programs.

CTE Publications

CTE Dedicated Volumes

Volumes dedicated to CTE research include Goertler and Winke (2008), Hampel and Stickler (2015), Hubbard (2009), Hubbard and Levy (2006), Kassen et al. (2007), Son and Windeatt (2017), and Torsani (2016).

CTE Journal issues

Journal issues dedicated to CTE include the following: *International Review of Research in Open and Distance Learning* (2006, 7.2), *Innovation in Language Learning and Teaching* (2009, 3.1), *ReCALL* (2011, 3), and *Language Learning & Technology* (2002, 3; 2015, 19.1).

CTE Key Articles/Chapters

Key articles and chapters on CTE include Arnold (2017), Hubbard (2008), Hanson-Smith (2016), Kessler and Hubbard (2017), and Torsani (2015).

CTE Special Interest Groups

In addition to published resources, CALL researchers and practitioners interested in CTE are also supported by special interest groups (SIGs) in several professional organizations:

- American Association of Applied Linguistics (AAAL), Standing Committee for Online Education and Outreach: www.aaal.org
- American Council on the Teaching of Foreign Languages (ACTFL), Teacher Development: www.actfl.org
- Computer Assisted Language Instruction Consortium (CALICO), Teacher Education SIG: www.calico.org
- EuroCALL, CALL Teacher Education SIG: www.eurocall-languages.org/

CALL Graduate Programs

Formal professional preparation programs that train teachers to teach languages with technology in blended or in completely online formats can take the form of CALL graduate certificates, Master's degrees, and PhD tracks in which one can focus on CALL-related topics.

United States

CALL graduate certificates

- Arizona State University: Graduate Certificate in CALL
<https://silc.asu.edu/degrees/grad/CALL>

- Boise State: Graduate Certificate in CALL
<https://www.boisestate.edu/graduatecatalog/programs/comp-assist-lang-learn/>
- Ohio University: Graduate Certificate for CALL module
<https://www.ohio.edu/cas/linguistics/graduate/call-module>
- University of Arizona: Graduate Certificate and PhD Minor in Technology in Second Language Teaching <https://slat.arizona.edu/home/minor-and-certificate-in-technology/>
- University of Colorado, Boulder: Online CALL certificate (continuing education) Graduate Certificate in Language Teaching with Technology
<https://www.colorado.edu/languageandtechnologyprogram/professional-development-program-you>

PhD concentrations in CALL

- Iowa State: PhD in Applied Linguistics and Technology
<https://apling.engl.iastate.edu/ph-d-in-applied-linguistics-and-technology/>
- University of South Florida: PhD in Technology in Education and Second Language Acquisition <https://www.usf.edu/education/areas-of-study/tesla/>
- University of Arizona: Second Language Acquisition and Teaching (SLAT) PhD, can focus on CALL topic
<https://slat.arizona.edu/>
- University of Arizona: Graduate Certificate and PhD Minor in Technology in Second Language Teaching <https://slat.arizona.edu/home/minor-and-certificate-in-technology/>

Europe and Asia

CALL research theme

- Open University (OU-UK), the Centre for Research in Education and Educational Technology (CREET), research sub-theme in Online and Distance Language Teaching and Learning <https://www.openuniversity.edu/research-degrees-prospectus/topic/online-and-distance-language-teaching-and-learning>

MA degrees

- University of Canterbury (NZ)
 - Master of Computer-Assisted Language Learning (MCALL)
<https://canterbury.ac.nz/study/qualifications-and-courses/masters-degrees/master-of-computer-assisted-language-learning/>
- Cyprus University of Technology
 - MA in Computer Assisted Language Learning
http://mastercall.weebly.com/uploads/4/6/0/8/46083583/elena_papa_master_pdf_21.2.17.pdf
 - Online MA in Computer Assisted Language Learning
<https://www.cut.ac.cy/faculties/languagecentre/courses/postgraduate/mastercall/>
- University of Manchester (UK)
 - MA in TESOL: Educational Technology concentration
<https://www.manchester.ac.uk/study/masters/courses/list/01367/ma-tesol/course-details/>

- MA in Digital Technologies in Education (MA DTCE) with TESOL pathway
<https://www.manchester.ac.uk/study/masters/courses/list/06954/ma-digital-technologies-communication-and-education/course-details/>
- University of Newcastle (UK)
 - Applied Linguistics and TESOL MA with technology option
<https://www.ncl.ac.uk/postgraduate/courses/degrees/applied-linguistics-tesol-ma/#profile>
- University of Stirling (UK)
 - Online TESOL MSc with CALL pathway <https://www.stir.ac.uk/courses/pg-taught/tesol-online/>

PhD Concentrations

- Univ of York (UK)
 - Dept of Education: CALL research themes; Centre for Research in Language Learning and Use (CReLLU)
<https://www.york.ac.uk/education/research/crellu/researchthemes/computer-assisted-language-learning/>

Digital Accreditations

Instructional Management System (IMS) Open Badges Project

“The IMS community is leading in the innovative use of digital credentials across K-12, higher education, and corporate learning. IMS is responsible for managing and advancing the Open Badges standard—a vital component in advancing the digital credentials ecosystem” (IMS 2020). <https://openbadges.org/about>

Open Educational Resources University (OERu)

“The OERu is a virtual collaboration of like-minded institutions committed to creating flexible pathways for OER learners to gain formal academic credit. The OERu aims to provide free learning to all students worldwide using OER learning materials with pathways to gain credible qualifications from recognized education institutions. It is based on the community service and outreach mission to develop a parallel learning universe to augment and add value to traditional delivery systems in post-secondary education. Through the community service mission of participating institutions we will open pathways for OER learners to earn formal academic credit and pay reduced fees for assessment and credit” (OERu 2015).

https://wikieducator.org/OER_university/Home

Digital Portfolios for Teacher Education

Center for Applied Language Studies (CASLS) and Professionals in Education Advancing Research and Language Learning (PEARLL)

Catalyst e-portfolios for teachers (CASLS and PEARL 2020)

<https://casls.uoregon.edu/classroom-resources/catalyst-professional-eportfolio/>

Professional Resources for CALL Researchers and Practitioners

The following list provides information on CALL professional resources (professional organizations, special interest groups, journals, CALL internet resources [e.g., webinars, workshops, YouTube videos, CALL internet repositories, and CALL tools and applications]) for self-directed learning by researchers and practitioners.

CALL Professional Organizations

- Hubbard (2020): Supplement page on CALL-related organizations
<https://web.stanford.edu/~efs/callcourse/CALLX.htm>
- International CALL Organizations
 - Computer Assisted Language Instruction Consortium (CALICO)
<https://calico.org/>
 - EuroCALL <http://www.eurocall-languages.org/>
 - World CALL <https://worldcall.webs.upv.es>
 - International Association of Language Learning Technology (IALLT)
<http://www.iallt.org/>
- Regional CALL Organizations
 - Pacific CALL Association (PacCALL) <https://paccall.org>
 - Asia Pacific Association for Computer-Assisted Language Learning (APACALL) <http://www.apacall.org>

CALL Special Interest Groups (SIGs)

- American Council on the Teaching of Foreign Languages (ACTFL), Distance Learning SIG: <https://www.actfl.org/connect/special-interest-groups>
- Computer Assisted Language Instruction Consortium (CALICO), Computer Mediated Communication (CMC), Gaming, Graduate Student, Immersive Realities (formerly Virtual Worlds), Language Teaching and Learning Technologies (LTLT), Second Language Acquisition and Technology (SLAT), and Teacher Education: <https://calico.org/sigs/>
- EuroCALL, CALL Teacher Education, Computer Mediated Communication (CMC), Corpus CALL, EUROCALL/CALICO Joint Virtual Worlds and Serious Games, Graduate, Intelligent CALL (ICALL), Less Commonly Taught Languages (LCTL), Language Massive Open Online Courses (LMOOC), Mobile Assisted Language Learning (MALL): www.eurocall-languages.org/ (SIGs tab)
- International Association of Teachers of English as a Foreign Language (IATEFL), Learning Technologies: <https://www.iatefl.org/meet-iatefl-sigs>
- Teachers of English to Speakers of Other Languages (TESOL), CALL Interest Section (CALL IS): <https://my.tesol.org/communities/community-home?CommunityKey=060d8cce-83b4-41da-9227-8d36ac69f8e1>

CALL Journals

This list of CALL-related journals is not exhaustive. See Smith and Lafford (2009, 875) for a more complete list of CALL journals and their rankings by CALL scholars.

- *Language Learning & Technology*: <http://llt.msu.edu>

- *CALICO Journal*: The journal of the Computer-Assisted Language Instruction Consortium (CALICO) www.calico.org
- *CALL Journal*: Computer Assisted Language Learning Journal
<http://www.tandf.co.uk/journals/titles/09588221.asp>
- *CALL-EJ*: CALL Electronic Journal <http://www.callej.org/>
- *The IALLT Journal*: The journal of the International Association for Language Learning Technology <https://iallt.org/resources/iallt-journal/>
- *International Journal of Computer-Assisted Language Learning and Teaching* (IJCALLT) <https://www.igi-global.com/journal/international-journal-computer-assisted-language/41023>
- *ReCALL Journal*: The journal of the EuroCALL professional organization
<https://www.eurocall-languages.org/publications/recall-journal>
- *System*: An International Journal of Educational Technology and Applied Linguistics
<https://www.journals.elsevier.com/system>

CALL Webinars/Workshops/YouTube Videos

CALL-related webinars, workshop, and internet videos are available on the web for teacher professional development.

ACTFL

- As a result of the COVID-19 crisis, which engendered a widespread need for developing expertise in online remote teaching practices (McMurtrie 2020; Williams June 2020), webinars on these topics sponsored by ACTFL are accessible on their website

<https://www.actfl.org/resources/teaching-and-learning-remotely>

- ACTFL resources for language educators that address issues of race, diversity, and social justice

<https://www.actfl.org/news/all/resources-address-race-and-social-justice-classroom>

CALICO

- As the May 2020 CALICO conference was cancelled, CALL workshops were presented online (e.g., gaming, AR, fundamentals of online teaching).
- Web/YouTube: Plenary talks at language related conferences on second language acquisition (Ellis 2019), CALL (Thorne 2018), telecollaboration (Lewis and O’Dowd 2016; O’Dowd 2015a, 2015b, 2018), and critical pedagogy (Ortega 2018).
- Professional webinars and workshops on topics related to technology integration and online language learning are also offered by language teaching professional organizations, as well as by publishers of language learning materials (e.g., McGraw-Hill, Pearson, Wiley).

CALL Resource Repository Websites

Lists of CALL resource repository websites can be found in the CTE literature (Davies 2012; Hanson-Smith 2016; Hubbard 2020; Kessler 2006; Major 2015; Meskill and Anthony 2015; Son and Windeatt 2017).

ICT4LT

<http://www.ict4lt.org/en/index.htm>

Graham Davies, Emeritus Professor from Thames Valley University, UK, and founder of EuroCALL, created one of the first CALL web repositories containing a collection of training modules in Information and Communications Technology (ICT) for Language Teachers (ICT4LT, Davies 2012). The website was initially sponsored by funding from the European Commission in 1999-2000 and was updated regularly until Davis' passing in 2012. The site contains several CALL resources for teachers, including text-based training modules at the basic, intermediate, and advanced levels for participants with varied levels of CALL expertise. The ICT4LT site also contains an incredibly detailed instrument for self-assessment (ICT Can Do Lists) on one's level of expertise with various tools and software applications (e.g., Word, authoring software, audio and video recording software, interactive white boards, discussion lists, blogs, wikis, social networking), forms that can be used to assess software and websites, a resource center (containing information on ICT training resources, professional associations, software publishers and retailers, and a CALL bibliography), a glossary of ICT terms, general guidelines on copyright, and a form and blog for readers to provide feedback on the site. Even though the site has not been updated since 2012, it is a valuable repository of detailed information on the field of CALL and training resources for teachers.

Multimedia Educational Resource for Learning and Teaching Online (MERLOT)

<https://www.merlot.org/merlot/>

Another repository of information that could be useful for teachers in any discipline moving to digital spaces is the Multimedia Educational Resource for Learning and Teaching Online (MERLOT), sponsored by the California State University System (CSUS 2020). The site contains community portals for online teaching and learning resources in many disciplines, e.g., teacher education, English, world languages, instructional technology, information technologies.

“Community Portals provide MERLOT members with differentiated information about exemplary teaching strategies professional associations, journals, conferences, and other resources for continuous professional development.” (CSUS 2020) A section of the website titled MERLOT Voices contains discussion boards and opportunities for community conversations related to online teaching and learning (<http://voices.merlot.org/>). According to Hanson-Smith (2016) communication on this site often consists of teacher comments on collections of materials posted by other instructors, which allows these forums to contribute to one’s PLEs.

An Invitation to CALL (course)

<https://web.stanford.edu/~efs/callcourse/>

One of the most up-to-date and comprehensive CALL digital repositories is the website for a course titled “An Invitation to CALL,” created and maintained by Phil Hubbard at Stanford University (Hubbard 2020). This website contains 8 units dedicated to CALL topics and a supplement containing a list of CALL professional organizations and SIGs. These detailed course modules could be used as the basis of a short course in CALL for language teachers in need of a brief (but detailed) introduction to the field.

- Introduction: journals, books, other
- CALL Courseware evaluation, Development, and Implementation
- Computer Mediated Communication
- CALL on the Web
- CALL and Language Skills
- CALL Research
- CALL Learner Training

- Conclusion Unit 8 (summary of topics not covered in other chapters: concordancing, LMS, Comp based testing, CoPs, teacher ed, tracking, Web 2.0, MALL and Virtual Worlds)
- Supplement

National Foreign Language Resource Centers (NFLRCs)

<https://www.nflrc.org/>

Another web-based resource for language teachers consists of a series of websites belonging to the National Foreign Language Resource Centers (NFLRCs) in the United States (NFLRC 2020). Each of these sixteen centers has a webpage that describes in detail the focus of each center and the resources it has to offer. A number of these centers have a significant focus on the use of digital resources for language teaching and assessment:

- Center for Applied Second Language Studies: CASLS (Eugene OR)
<http://casls.uoregon.edu>
 - VAuLT: use of AR and VR in language classrooms
 - LingrotoGo: resources on game-based language learning
 - Games2Teach: games for language learning
 - LinguaFolio (CASLS 2020): digital portfolios for language students
- Center for Open Educational Resources and Language Learning (COERLL) Austin TX; resources for the internet public
<http://www.coerll.utexas.edu>
- National Foreign Language Resource Center (NFLRC), Hawaii
<http://www.nflrc.hawaii.edu/>

- Open Language Resource Center (OLRC), Kansas; resources for K-16 secondary and university personnel

<http://olrc.ku.edu>

EUROCALL Online resources/repositories

<http://www.eurocall-languages.org/>

EUROCALL is currently updating a list of online resources and repositories for online learning to be uploaded to its website.

CALL Tools and Applications in CTE/CALL Literature

CTE and CALL scholars have focused on the affordances and constraints of various CALL tools and applications, e.g., wikis, communities of practice (CoPs) MOOCs, natural language processing (NLP), gaming, mobile assisted language learning (MALL), augmented reality (AR), and virtual reality (VR).

Wikis

A way to foster collaboration among teacher trainees would be for them to participate in a project-based learning activity in which they create a Wiki on a topic that would motivate colleagues to move into digital spaces (Kessler 2006). The opportunity for students or teachers to work with tools such as Wikis has been shown to increase participation (Lund 2008), improve self- and peer-editing abilities (Kessler 2009) and L2 writing abilities (Elola and Oskoz 2010), and prepare them for collaborative discussions and projects in which they will participate in their workplaces (Kessler, Bikowski and Boggs 2012).

Communities of Practice (CoPs)

Kessler and Hubbard's (2017) call to prepare teachers for a social future reflects the need for teacher training in collaboration and socialization skills highlighted by Hampel and Sticker (2005), Hampel (2009), and Compton (2009). Son and Windeatt (2017) noted the need for training language teachers to collaborate, which should include hands-on experience participating in CoPs or CoIs (Arnold, Ducate, and Lomicka 2007; Arnold, Ducate, Lomicka, and Lord 2005).

In addition to providing language teachers with a post-course discussion list and with information on specific social networking tools for developing CoPs, teacher training needs to encourage teachers to join already established professional CoPs to increase their knowledge of the use of these tools in specific educational contexts:

- Hubbard (2020) and Hanson-Smith (2016) both identified Webheads in Action (<http://webheadsinaction.org/>) as a valuable CoP for language teachers involved in TESOL's Electronic Village Online (EVO) and other curricula with a language or cultural focus.
- Hanson-Smith (2016) provided examples of CoPs for language teachers on a CoP resources website http://webpages.csus.edu/~hansonsm/CoP_Resources.html.
- Major (2015, 250-252) provided a list of collaborative tools (e.g., Wiki documents), with description and purpose (e.g., collaboration across time and space), and sample current technologies (e.g., Google docs, Wikispaces).

Regardless of the particular social networking environment they choose, teacher trainers should encourage faculty to develop their creativity and own personal style in these spaces (Hampel and Stickler 2005), and give them target language lexicon for working in digital spaces and target culture netiquette norms

MOOCs

An increasingly popular platform for collaboration and forming or participating in CoPs is the Massive Open Online Course (MOOC), which Hanson-Smith (2016) identifies as a web-based open-access resource for self-directed learning. MOOCs often contain audio, video and textual content, as well as discussion forums and social media to support interaction and the formation and maintenance of CoPs among students, TAs, and professors. Downes (2012) identified the main principles of MOOCs as focusing on learner autonomy, interaction with others, diversity, and openness. Motzo and Proudfoot (2017) identified connectivism, collaborative learning and socio-constructivism as constituting the theoretical underpinnings of MOOC environments, however, they did note that the design and delivery of specific MOOCs can vary in their theoretical groundings and consequent manifestations.

As MOOCs can be accessed by and created for use with mobile technologies (Ibáñez Moreno and Traxler 2016), it is important to take into account various MOOC design features needed in a MALL environment. In order for language teachers to find out about MOOCs with free courses in online learning and education, they can be referred to the MOOCs Directory, which contains resources for educators at all levels (<http://www.moocs.co>).

Natural Language Processing (NLP)

Applications using NLP provide students with intelligent CALL (ICALL)-based tutoring programs give feedback on their production and can also be a useful ancillary language learning tool (Dickinson, Brew, and Meurers 2013). Nevertheless, Kessler and Hubbard (2017) noted that some language teachers have resisted incorporating these automated tools into their curriculum (Warschauer and Grimes 2008) and that appropriate and effective CALL teacher training in NLP applications is a rare occurrence.

Gaming

Gee and Hayes (2011) found that the use of gaming in language classes promoted student engagement and situated learning in meaningful ways. In addition, CALL scholars have found that gaming can help build student autonomy, digital literacy, as well as communities of learning (Chik 2014; Davies 2006; Rama et al. 2012; Reinders and Hubbard 2013; Reinhardt 2019; Sykes and Reinhardt 2013; Sykes, Reinhardt, and Thorne 2010; Thorne and Reinhardt 2008). In addition, place-based AR gaming applications that get language students involved in the community can provide situated learning experiences to enhance their linguistic and intercultural communicative competence (Holden and Sykes 2011).

CTE training resources for teachers on Virtual and Augmented Reality Language Training (VAuLT) and games (LingrotoGo for mobile devices; Games2Teach) for language learning can be found on the Center for Applied Second Language Studies (CASLS) website. In addition, Sykes and Reinhardt (2013) and Reinhardt (2019) can serve as valuable resources on the use of gaming for language teaching. However, Kessler and Hubbard (2017) noted the need for more research on how to have teachers critically engage with issues of gaming in teacher training programs.

Mobile Assisted Language Learning (MALL)

New mobile – assisted language learning technologies (MALL) (e.g., cell phones, tablets) enable students to use mobile applications to learn languages without being tied down to a physical location (Burston 2013, 2014; Godwin Jones 2011; Hubbard 2020; Kukulska-Hulme 2012; Liu 2016; Son and Windeatt 2017; Stockwell 2013, Thorne et al. 2015).

Augmented Reality (AR)

Due to the popularity of *Pokémon Go* among students and teachers alike, MALL users are familiar with applications that involve augmented reality (AR), a digital overlay onto images of reality, to contextualize and situate language use (Cheng and Tsai 2013; Thorne and Hellermann 2017). The use of AR in language classes has been shown to increase student concentration and interest in learning (Dunleavy, Dede, and Mitchell 2009; Zhang et al. 2015), provide more authentic learning experiences (Klopfer 2008), reduce cognitive overload (Bower et al 2014), and enhance students' ability to problem solve, think critically and collaborate (Wasko 2013).

Virtual Reality (VR)

Cheng and Tsai (2013) pointed out that while AR allows the user to see reality with virtual elements overlaid upon it, virtual reality (VR) shuts out the physical world and forces users into an artificial environment in which they are completely immersed. Although the use of virtual reality (VR) in language learning has also been explored (Comas-Quinn, de los Arcos, and Mardomingo 2012; Lan 2020; Lin and Lan 2015), the costs of the equipment and software to access virtual worlds (e.g., Second Life [Stevens 2006]) traditionally limited the feasibility of its widespread use in language classes. However, the popularity of low-cost VR options (e.g., Google Cardboard) has now made VR use more feasible in traditional classroom settings (Heathman 2016).

Evaluation Resources for CALL Researchers and Practitioners

Resources to evaluate CTE training, CALL websites/software, and CALL scholarship for promotion and tenure are listed below.

Evaluation of CTE Training

Several CALL scholars have provided readers with the assessment instruments they used to assess the effectiveness of their CALL training programs. Examples of such instruments are found in Goertler and Winke (2008), Kessler (2006), and Windeatt (2017).

CALL Website/Software Evaluation Resources

Language faculty need to evaluate and select materials for suitability and effectiveness (Compton 2009; Hampel and Stickler 2005; Healey and Johnson 1997/98, updated 2009; Healey et al. 2011; Warschauer 2002). Resources to assess the quality and appropriateness of CALL materials include guidelines to evaluate software (Chapelle 2001; Hubbard 2006 [*CALICO Journal* review form in this chapter's Appendix], 2011, 2020 [unit 2]; Jamieson, Chapelle, and Preiss 2005; Levy and Stockwell 2006; NFLRC [University of Hawaii] 1998), courseware and tutorial applications (Hubbard 2019), websites (Hubbard 2019), and MALL applications (Reinders and Pegrum 2015; Rosell Aguilar 2017). In addition, the following websites contain resources for evaluating CALL software:

- ICT4LT (Davies 2012): forms for software evaluation <http://ict4lt.org/en/index.htm>
- Hubbard 2020: CALL Courseware evaluation, Development, and Implementation; contains references to software evaluation rubrics in CTE literature
<https://web.stanford.edu/~efs/callcourse/CALL2.htm>

Evaluation of CALL Scholarship for Promotion and Tenure

CALICO document to university administrators on how to evaluate CALL scholarship for Promotion and Tenure <https://calico.org/home/scholarship-in-call/>

CALL Resources Bibliography

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