

Article

Effective Online Foreign Language Courses: Theoretical Framework and Practical Applications

Abstract:

Institutions are increasingly turning towards online foreign language courses, yet there are almost no guidelines for their development and implementation. Because there is significant research on online education and instructed second language acquisition (SLA)—but very little on the intersection of the two—this article emphasizes the importance of considering research from both fields for the successful design of online foreign language instruction. Empirical evidence from distance and blended learning, applied linguistics, and SLA research is considered as the article presents four guiding principles of online foreign language course design: 1) follow principles of SLA; 2) establish a sense of community; 3) choose relevant and appropriate technology and content; and 4) provide students and instructors with adequate training. The discussion of the third principle includes an overview of the technological and pedagogical options available for online courses and makes specific recommendations for teachers, administrators, and designers. This section includes a discussion of Learning Management Systems (LMS) and web-conferencing software; a review of the research on computer-mediated communication (CMC) as well as information on how to choose appropriate tools to facilitate CMC; a discussion of how to incorporate relevant audio and video into online courses; and a discussion on simulations and virtual worlds. All of these recommendations are

based on educational, educational technology, and second language research findings on how to maximize language learning.

Key words: Online learning, foreign language, technology, second language acquisition, course development.

1. Introduction

For the past twenty years instruction has been moving out of the traditional classroom and into online learning environments, (1) and with this shift towards virtual learning has come significant research on what works (and what doesn't) in online learning and teaching. At the same time, the past twenty years have seen an explosion of empirical research in the fields of applied linguistics and second language acquisition (SLA), giving foreign language instructors new pedagogical strategies, goals, and frameworks. However, there has not been a lot of overlap between the two domains. While there are now degrees, departments, and even entire universities that only exist in cyberspace, online foreign language courses are often developed and offered without sufficient consideration of pedagogically sound practices for online learning or research findings from the field of SLA.

This article is intended to serve as a guide for institutions, administrators, and teachers interested in developing online language courses. Beginning with a discussion of the empirical research on online learning and second language acquisition, it will propose four guiding principles for online language courses as well as practical considerations, resources, and concrete examples of successful online practices. The article will emphasize how foreign language instructors can

make the most of the Internet to create innovative courses that provide learners with opportunities for language learning that reach beyond those possible in a traditional classroom.

2. Guiding principles

2.1. Follow established principles of SLA

To have any hope of success, online language courses must follow empirically established principles, which have been discussed repeatedly in the SLA literature (see, e.g., Doughty & Long, 2003a; Gass & Selinker, 2001; Hinkel, 2005). Despite this, we think a brief review of these principles would be a logical place to begin our discussion, as they serve as the cornerstones of all effective instructed SLA, including instruction outside of the traditional classroom.

Provide sufficient input

Even when theorists disagree about how the SLA process works, they all maintain that without sufficient *input* —i.e., exposure to the target language— people will not acquire a second language. Input provides positive evidence of the correct formulations of the target language so that learners can form hypotheses about how it works (Doughty & Varela, 1998; Gass, 1998, 2003; Oliver, 1995; Spada & Lightbown, 1993; VanPatten & Cadierno, 1993; Williams & Evans, 1998). However, not all input can be processed by second language (L2) learners, and genuine discourse (2) from fluent speakers may be too complex for learners, especially at the lower levels. In order to facilitate instructed SLA, several researchers have proposed modifications of L2 input in order to make it

“comprehensible” (Gass, 2003) and “noticeable” (Schmidt, 1990; Ellis, 1991). This does not mean, though, that input should be simplified. Empirical evidence has shown that *elaborated* input (i.e., input that has been expanded to clarify potentially troublesome structures) is more beneficial for learners than simplified input (Oh, 2001; Parker & Chaudron, 1987; Yano, Long & Ross, 1994). In addition, *enhanced* input (i.e., input that has been made more salient for learners through highlighting or other emphasis) has been shown, in some cases, to improve learner noticing of target language forms (Chapelle, 1998; Sharwood-Smith, 1993). Online courses can accommodate a variety of input that can then be tailored to an individual learner's needs and learning style.

Provide opportunities for output and interaction

Input alone is not sufficient for acquisition—learners also need opportunities to produce *pushed output*, as illustrated by the studies conducted in French immersion programs in Canada (Swain, 1985, 1995; Swain & Lapkin, 1995). This research revealed that second language learners were unable to attain target-like competence despite many hours of exposure to multiple and rich forms of input. The researchers concluded that through *output* learners test and correct their hypotheses about how the language works and develop automaticity (Gass, 1997; Swain, 1995). Empirical evidence has also shown that when all treatments are equal, learners acquire language more quickly when they are pushed to produce it (Izumi, 2002).

Although students can produce output in many ways (e.g., in writing, through elicited imitation, by reading dialogues), in order to learn to communicate

effectively , learners must interact in the target language. The Interaction Hypothesis (Long, 1996) states that interactive tasks facilitate second language acquisition because they connect input, attention, and output in a productive way. Through interaction, learners receive negative evidence and feedback, both of which require them to make multiple adjustments to their discourse as they communicate. An online language course that includes communicative competence among its learning goals would then clearly benefit from activities that promote students' interaction with one another, as well as with other speakers of the target language, as much as possible.

Provide feedback

In addition to input and output, it is accepted among SLA researchers that learners also require corrective feedback on their emerging language systems (Carroll & Swain, 1993; Lightbown & Spada, 1990; Trahey & White, 1993) and research has shown that feedback is more effective when it is immediate (Tomasello & Herron, 1989). There is less agreement about how exactly to go about error correction. Corrective feedback can be provided in a continuum from complete, explicit correction of all TL errors to providing implicit feedback by for example recasting problematic utterances. Although the decision of how and when to provide feedback is very context-dependent and linked to other pedagogic choices, one approach that works well for online courses is Focus on Form (FonF) (Doughty & Williams, 1998; Long, 1999). FonF argues that for error correction to be effective, students' attention should be shifted to linguistic form after they are already engaged in meaning, and not before. That is, learners' attention should be drawn to an error when it is interfering with their

communicative tasks, making FonF an individualized approach to feedback. One advantage to online instruction is the ability to include activities that provide students with immediate feedback that targets their own personal errors while they are engaged in communication, providing the ideal conditions for effective feedback.

2.2. Establish a sense of community in the online foreign language classroom

A sense of community, which Rovai (2002b) defines as “connectedness, cohesion, spirit, trust, and interdependence among members” (p. 201), is essential for participants in all online classes. Early online courses tended to transfer traditional classroom content directly to the online environment, with isolated students using the Internet to complete what was essentially a correspondence course. After analyzing student performance and experience in one of these early courses offered through the British Open University, Wegerif (1998) determined that a sense of belonging to a virtual community correlated highly with student success. Numerous subsequent studies have identified a positive relationship between participants' perception of belonging to an online community and their success in and satisfaction with online courses (Brown, 2001; Liu, et. al. 2007; Ni & Aust, 2008; Sadera, et. al., 2009; Swan & Shea, 2005). In addition, we can find multiple texts that suggest methods for fostering this online sense of community such as requiring students to meet mandatory participation requirements, providing multiple communication tools, maintaining an active instructor presence, and providing frequent and meaningful feedback (i.e. Brown, 2001; Hill et. al., 2002; Palloff & Pratt, 2007; Rovai, 2002a).

If a sense of community is important for online classes, it is a *must* for foreign language online courses. To maximize opportunities for acquisition, online foreign language courses must include a social space so that students can interact in the target language through tasks that require collaboration (Fleming et. al., 2002; White, 2006). According to Liu, *et al.*, “[c]ommunities cannot develop on their own without careful planning, continued support, and intentional tasks and activities” (2007, p. 22), and many online instructors have difficulty doing so (Zhang & Walls, 2006). Online instructors must be engaged in the virtual classroom themselves to promote student participation (Morris & Finnegan 2008; Ni & Aust, 2008). One of the benefits of online language instruction is that students can actually have more opportunities for output and interaction than in a face-to-face course because they can communicate with more than just their instructors and fellow students. Students can interact in public or private chat rooms with native speakers (Tudini, 2003), work with native speaking tutors (Hampel & Stickler, 2005), or participate in a student-student exchange with English as a foreign language learners at a different institution (O'Rourke, 2005).

3. Maximize the benefits of the Internet by choosing relevant and appropriate course content and technological tools

When developing online courses, it is important to keep in mind that we are not designing curricula and materials to compensate for the “disadvantages” of online teaching, but rather to maximize the benefits that working via the Internet can bring to the learning experience. As Newlin and Wang (2002) point out, “if educators develop Web instruction solely as a means of changing student access, they have missed the point about using the Web as an instructional tool” (p. 329).

For example, online students have the world at their fingertips—they can access target-language discourse from a seemingly limitless pool, making it easy to forgo traditional textbooks, which can be poor choices for facilitating SLA because they lack authentic input and emphasize language-as-object (Long, 2007, p. 125). Before identifying the content for an online course, instructors and administrators should determine the purpose of the course and what types of online materials would be most useful (see Long, 2005; Long & Norris, 2000, for a discussion of the importance of a needs analysis before designing any foreign language program).

Another advantage of online courses is the ability to incorporate a wide variety of synchronous, asynchronous, and multimedia-based tools (Menchaca & Bekele, 2008). However, while it is tempting to include all of the latest web-based resources, online instructors must choose tools that have demonstrated their utility in the SLA process. That is, instructors should select tools that give students opportunities for output and interaction, increase students' exposure to the target language, make target-language input more salient, and provide students with appropriate feedback. The following discussion provides recommendations and guidelines for choosing technological components of online courses, from learning management systems to web-based exercises.

3.1. Learning-management systems and/or web-conferencing software

The first technological consideration is the selection of an appropriate Learning Management System (LMS), which is the web-tool that delivers the course content and engages the students with the course materials. The first place to

look for an LMS is the institution hosting the language course. The three most popular platforms in educational contexts are [Blackboard Learning System](#), [WebCT](#) (acquired in February 2006 by BlackBoard, Inc.), and [Moodle](#). Moodle is an open source LMS, while BlackBoard and WebCT are available by subscription. These platforms are typically managed by a central office at each institution and have relatively fixed functionality and features, which are often not selected for their application to online language learning. When the in-house LMS is not set up to accommodate the multimedia tools necessary for language courses, or when an institution does not have an LMS available, there are multiple online learning platforms that allow for custom tools, such as [Desire2Learn](#), [Metacoon](#), [OLAT](#) (O nline L earning A nd T raining) [Claroline](#), [A tutor](#), and [Sakai](#) (See Appendix 1 for links to all the tools mentioned throughout the article).

When choosing an LMS, language instructors should consider the following factors: ease of access and navigation; technical support; ability to incorporate necessary tools; ability to hide unnecessary tools; potential for interactivity (e.g., whether it allows students to incorporate content, create materials, and upload and download content, audio, and video); potential for monitoring student use (e.g., participation, time spent using tools, time spent on different activities, and performance); and potential for incorporating different types of assessment. Finally, an essential feature in an online language course is feedback, so before choosing an LMS, instructors should ask: Does the LMS provide opportunities for immediate feedback, both orally and in writing? Can students provide peer-feedback? Can students and teachers access and retrieve past feedback for formative purposes? Because online foreign language courses require so much

from their LMSs, the systems that are used successfully for other types of classes are frequently unsuitable. In order to work around this, many educators choose an LMS that meets some needs, and then have students use alternative tools for other applications, such as synchronous voice chatting. While this approach can work, it is not ideal because learners can get overwhelmed when they need to visit multiple websites for the same course.

Web-conferencing applications are a flexible complement to LMSs. These packages are becoming popular among individual educators who do not want to be constrained by the LMSs used in their institutions and want to use a tool that allows them to meet their students virtually. Some of the most popular and comprehensive of these tools are: [Elluminate Live!](#), [Adobe Acrobat Connect Pro](#), [Wimba](#), and [Dimdim](#). The first three products listed require a subscription while Dimdim has both free and for-pay versions. All of these web-conferencing tools have similar features: They permit audio, video and text conferencing, they can display PowerPoint presentations, they have an interactive whiteboard, they allow guided web browsing and desktop sharing, they allow for simple feedback, they allow users to record sessions to be replayed (for those students that may have missed “class”), they work cross-platform, and they are password secured. According to Lavolette (2009) some of the advantages of Elluminate over the free version of Dimdim are that Elluminate is stable if the presenter logs out while in Dimdim if the presenter closes his/her computer the meeting also ends. In addition, Elluminate has better audio (especially for Mac users) and allows users to choose the resolution of presentations (although this makes the process more complicated).

Web conferencing software does not typically incorporate the classroom management tools, such as gradebooks, assessments, and portfolios that come standard with LMSs, so instructors might need to use them in conjunction with some sort of course management software. Regardless of which LMS and conferencing tools are chosen, it is important to keep in mind that the instructor's methodological and pedagogical approach to the software and tools is critical for student success in an online course.

3.2. Synchronous and asynchronous discussion tools and strategies for fostering interaction

Effective online foreign language courses should employ a variety of tools for computer-mediated communication (CMC), so that learners can interact synchronously and asynchronously through text, audio, and/or video with other speakers of the language. Synchronous computer-mediated chat (SCMC) has been the subject of significant empirical research, and it offers several advantages to language learners. It has the potential to foster collaborative learning by linking geographically dispersed participants. It allows learners to interact and modify their discourse while engaging in meaningful "conversation" (Doughty & Long, 2003b). SCMC fosters student-centered interaction (Beavois, 1998; Chun, 1994; Freiermuth, 2002; Kern, 1995; Warschauer, 1996), facilitates interactive competence (Chun, 1994; Kern, 1995), and promotes a sense of community (Darhower, 2000; Skinner & Austin, 1999, Wilkins, 1991). In addition, some research has shown that text-based CMC may indirectly improve speaking ability in a second language by developing the same cognitive mechanisms underlying spontaneous conversational speech in a second language (Beauvois,

1998; Payne & Whitney, 2002). For a more in depth review of CMC research in SLA, see Blake (2008).

In addition to the research findings on synchronous, text-based chat, there is also evidence that other types of computer-mediated communication can offer unique benefits to online language learners. Asynchronous computer-mediated chat (ACMC) is beneficial for L2 learners because it provides significantly more opportunities to communicate than either a traditional classroom or SCMC—students can contribute at anytime from anywhere—and it allows for reflection on their developing interlanguage, permitting “more thoughtful” (Kol & Schcolnik p. 61) and syntactically more complex (Sotillo, 2000) interchanges than SCMC. And although most of the research on CMC has been done on text-based interchanges, recently there have been several studies on the potential of voice and video chat for language learning, which highlight the similarities of the medium to face-to-face conversation (Jauregi & Bañados, 2008; Yamada, 2009). A well-rounded online course should afford students opportunities to engage synchronously and asynchronously through both text and voice/video.

Whereas most standard LMSs offer tools for CMC, especially for text-based communication, the inclusion of voice or video tools is rarer. There are multiple tools for synchronous CMC, most of them free of charge. Some of the most popular SCMC tools are [Skype](#), [AIM for Windows](#), [MSN](#), [Yahoo Messenger!](#), and [Google Talk](#). Several websites can help learners locate interlocutors with whom to practice their L2 through text and audio/video chat. Some of the most popular are [EyeBall Chat](#), [Camfrog](#), and [PalTalk](#). In addition, sites like Google Groups and Yahoo groups provide spaces for learners to interact in the target language

with people who have similar interests, providing a place for highly motivating and individualized language practice. Before determining whether to use text chat, audio chat, video chat, or (most likely) a combination of the three, instructors must consider the purpose of the activities, the number of participants, and the technical capabilities of the interlocutors. Audio chat requires a headset and microphone, video chat requires a webcam, and both require more bandwidth than simple text chatting.

As for asynchronous CMC , some of the first tools employed for language learning were Forums and Bulletin Boards, which are still incorporated in most LMSs, where the teacher or a student would post a question or a comment to which all other class participants would respond. Blogs are the second generation of Bulletin Boards--basically they are open journals written on a web platform. Blogs are chronologically organized with the most recent posting first, and users can include text, multimedia, and active links. In addition to allowing students to practice L2 reading and writing skills, blogs also give them opportunities to collaborate, persuade, contend and develop ideas as individuals and as part of a group in a public arena, rather than in the closed environment of a classroom forum, a factor which gives them a "sense of agency" (Gallagher, 2000; Stavrositu & Sundar, 2008). Blogs can be used as tools for reviewing, providing feedback (teacher-initiated or peer-peer), and as spaces for collaborative writing. To cater to the growing interest in blogs as an alternative to forums and bulletin boards, numerous sites now offer simple, ready-to-use blog services (e.g., [Blogger](#), [WordPress](#), or [Moveable Type](#)), and there are also blogs created specifically for educational purposes (e.g., [Blogs2Teach](#), [weblogs4schools](#), [The modern languages blog](#), [Eslblog](#)).

Although blogs can be used for collaborative writing, the chronological order of the postings limits their interactive potential. Wikis, on the other hand, encourage truly collaborative writing efforts. The term "Wiki" ("quick" or "fast" in Hawaiian) is short for WikiWikiWeb, an open-editing system in which anybody can edit, add, or delete content to a page. The most popular Wiki is certainly Wikipedia, a publicly-created encyclopedia that has swiftly reached mammoth proportions (see LeLoup & Ponterio, 2006 for an evaluation of its use for language learning). [Wikispaces](#) is an environment in which wikis can be created easily for classroom purposes. As with blogs, the potential of wikis for language learning lies in their collaborative nature and the potential that this has for L2 writing acquisition. Godwin-Jones (2003) provides an excellent review of blogs and wikis as language tools.

Due to the wide variety of tools available for CMC, it is important to keep in mind that there are often logistical scheduling constraints with synchronous CMC, especially when grouping students across time zones. Further, while there are advantages to using different tools for different tasks, asking students to use, for example, an LMS, web-conferencing software, external SCMC software, a blog, and a wiki has the potential of requiring students to log into five different programs, which is likely to result in infrequent and inconsistent use. It might make sense to choose one or two tools that can cover as many of the possible CMC functionalities to increase the likelihood of participation. In addition, instructors should take learner level and course goals into consideration when choosing tools; writing-intensive tools, such as wikis and blogs, would be most beneficial for an online course that focuses on L2 writing. And while access to fluent speakers and expert performances is one of the most significant

advantages of web-based language courses, instructors must have students access these resources carefully. When using CMC with younger students, it is essential to ensure that their chat rooms are private and do not allow people to come in from outside the course without an invitation from the teacher. Finally, just as with the LMS and any web conferencing software, students will need tutorials in how to use the various CMC tools as well as chances to practice with them under low-stakes conditions.

3.3. Audio and video discourse

The adaptation of existing media to the field of second language learning is a process that is far from complete, and “the dizzying array of technologically feasible options in distance learning” (Doughty & Long, 2003b) remains vastly underexploited. For example, given the nature of the field, the insertion of video and audio in materials to be viewed on- and off-line is highly desirable, yet many materials developers continue to rely on inauthentic, scripted exchanges. Online instructors should use genuine audio and video whenever appropriate, modifying and elaborating the input to make it match the learners' needs. There are many easy-to-use tools that allow the creation and manipulation of audio, such as [Audacity](#), which is free software, as well as [WavePad](#) for Windows and Sound Studio for Mac OS, which are available for purchase. As for video, from simple programs such as [Windows Movie Maker](#) (a Windows application) or [iMovie](#) (for Mac) to more sophisticated options, such as [Corel VideoStudio ProX2](#), there are multiple tools on the market that allow the creation of videos that can be incorporated into online courses. In addition, students can use these audio and video tools to work collaboratively in the target language.

One way to incorporate audio in online courses is podcasting, which refers to the online broadcasting of streaming and/or downloadable files. Students can receive these files electronically as an mp3 file, listen to them on their mp3 players, and manipulate them with several programs. Podcasts can be used in the language classroom as a source of input (created by the teacher or by others), they can be used in conjunction with written text, such as questions for listening and comprehension exercises, or they can be created and distributed by the students. A common source of podcasts is *iTunes* and its podcast section "Education." Other popular podcast sites are [Digital Podcast](#), [Podcastalley](#), and [Weblogs](#). Podcasts are available in different languages, with either a pedagogic objective or as an information source (see, for example, the [BBC](#), [Toefl Podcast](#), [BBC Mundo](#), or [Chinese Pod](#)).

3.4. Simulations, virtual worlds, and Massively Multiplayer Online Gaming Spaces (MMOGS)

These "game-like" tools are some of the newest technological applications with potential educational value (Gee, 2003, 2005; Jenkins & Squire, 2004; Steinkuehler, 2008). Simulations help create a student-centered environment that promotes interaction and collaboration (Godwin-Jones, 2004 ; Schwienhorst, 2002) , allowing students to set their own goals (Bryant, 2006). Simulations can offer students increased opportunities for practice by using computerized interlocutors in a practice-oriented environment (Morton & Jack, 2005) and by restricting the amount of teacher-talk (Sharrock & Watson, 1987). For language learning, simulations have a positive effect on motivation and achievement, particularly on the understanding of vocabulary for specific purposes, and the

assimilation of cultural issues (García-Carbonell et al., 2001; Sykes, Oskoz & Thorne, 2008; Thorne & Black, 2008; Zheng, 2004). In order to be effective for language learning, these tools must be carefully integrated into online courses in order to compensate for the complexities of the technology (Deutschmann et. al., 2009; von der Emde et al., 2001).

3.5. Interactive language materials

One of the benefits of online courses is that they can easily include a wide variety of interactive multimedia activities with individualized feedback. Despite this, the multimedia used in technology-mediated language training is often quite static. For example, little use has been made of exercises that require the movement of audio or video clips to match, sequence, or group phrases – activities that are a fundamental step beyond the linear listening exercises presented in the traditional tape-and-textbook scenario (Brett & González-Lloret, 2009). While it is straightforward to locate authentic video and audio clips on the web, innovative online teaching should go farther and include interactive activities.

There are many software packages available that allow users, both teachers and students, to manipulate audio and video to create multimedia projects. Some of these are: *GISMO*, *CLIC*, *Adobe Authorware 2*, *Malted* , *Flash*, and *Director*. For a review of these tools, see Brett and González-Lloret (2009). Some of these products are quite complex and require programming experience and/or training, but the most widely used materials development software among educators, *Hot Potatoes*, is user-friendly. This program is free of charge for

educational institutions and produces JavaScript-based exercises that are suitable for on- and offline use. Instructors can create a wide variety of exercises, including multiple-choice, jumbled sentences, crosswords, matching/ordering, and gap-fill. Graphics, pictures, audio and video can be incorporated in the activities, and the materials developer can provide feedback to learners in a variety of ways.

4. Provide instructors and students with sufficient training

The final guiding principle for online language courses is training—in order to teach effectively, foreign language instructors should be trained in online language instruction as well as relevant technological tools (Bonk & Dennen, 2003; Dennen & Bonk, 2007; Hampel & Stickler, 2005). Instructors new to online teaching benefit from guidelines for participation and interaction, such as staying “visible” in the classroom by responding to student discussions and assignments as quickly and as thoughtfully as possible. It is important to prepare instructors for the time commitment involved when teaching online. “[T]imely feedback can be an important time workload issue for the instructor or mentor teaching online. There is no doubt that online instruction is more time intensive and requires more continuous attention in order to provide timely responses to student needs than does traditional presential instruction” (Carr-Chellman & Duchastel, 2000, p. 235). Because effective language courses are focused on interaction, instructors should try to engage the students in communication through computer-mediated chat, asynchronous discussions, real-time voice chat, and assignments that require student-student interaction. In order to do this, instructors must understand how turn-taking and other conversational conventions “translate” to

CMC and assist students as they negotiate this type of technology-mediated communication. Matching online language instructors with an experienced mentor is one way to enhance instructor training—having access to archived versions of effective online courses can go a long way towards preparing teachers for distance instruction.

As for students, they should be given detailed information about expectations for online learning, tutorials for the course's technological tools, and access to an archive of frequently asked questions. Students must engage with the content, with the instructor, and with other learners while adhering to the course schedule and other requirements. When students are prepared for the online classroom, their study time can be devoted to the activities and materials that will facilitate language learning, rather than learning how the environment works through trial and error or troubleshooting technical difficulties.

5. Conclusion

Distance courses are rapidly proliferating and online language courses are becoming more commonplace. In order to be successful, online foreign language courses must be based on methodological and pedagogic principles based on SLA research, while maximizing the advantages of the Internet, by, for example, providing students with access to multimedia, genuine discourse, and expert speakers. It is essential for the success of any online course, and especially a foreign language course, to establish a sense of community among teacher and students, choose course content that is relevant and appropriate to students' language learning needs, and incorporate technological tools that complement

the course content and facilitate the tasks. Practical training cannot be overlooked. Teachers new to the online environment must be prepared to teach online in terms of both technology and pedagogy, and online learners must be prepared so they can participate appropriately.

As more online courses are offered, it is imperative to collect empirical data on their effectiveness so that we can evaluate and revise our course design recommendations. In addition to evaluating courses based on learner performance (see, e.g., Blake, 2009, Blake, et. al., 2008, and Volle, 2005), researchers must seek out feedback from online learners so that instructors and course developers can take their experiences into account as they design and deliver online language courses (Lai, et. al., 2008). Finally, while we have listed many resources and technological tools throughout (see Appendix 1 for all resources and links to more information) these are just examples, which will quickly be replaced as newer and more powerful ones are developed. Online learning courses should evolve as fast as the technology progresses. New programming is giving way to increasingly realistic graphics and interfaces, which will soon allow students to have more life-like interactions with simulated interlocutors. More sophisticated programming will also bring more interactive activities with sensorial multimedia and accurate, individualized feedback. As new tools and technologies become available they should be considered with respect to their role in the SLA process so that they are used judiciously and appropriately in online language courses.

References

Beauvois, M. H. (1998) Conversations in slow motion: Computer-mediated communication in the foreign language classroom. *Canadian Modern Language Review*, 54 (2): 198-217.

Blake, R. (2009) The use of technology for second language distance learning. *The Modern Language Journal*, 93: 822-835.

Blake, R. (2008) *Brave New Digital Classroom. Technology and Language Learning*. Washington, DC: Georgetown University Press.

Blake, R., Wilson, N., Cetto, M. & Pardo-Ballester, C. (2008) Measuring oral proficiency in distance, face-to-face, and blended classrooms. *Language Learning and Technology*, 12 (3): 114-127.

Bonk, C. & Dennen, V. P. (2003) Frameworks for research, design, benchmarks, training, and pedagogy in Web-based distance education. In: Moore, M. G. & Anderson, B. (eds.), *Handbook of Distance Education* Mahwah, NJ: Lawrence Erlbaum, 331-348.

Brett, D., & Gonzalez-Lloret, M. (2009) Technology-enhanced materials. In Long M. & Doughty C. (eds.), *The Handbook of Language Teaching* . Malden, MA: Blackwell, 351-369.

Brown, R. (2001) The process of community-building in distance learning classes. *Journal of Asynchronous Learning Networks*, 5: 18-35.

Bryant, T. (2006) Using Word of Warcraft and other MMORPGs to foster a

targeted, social, and cooperative approach toward language learning. *Academic Commons, the Library.* Available at: <http://www.academiccommons.org/commons/essay/bryant-MMORPGs-for-SLA>. last accessed 29 August 2010.

Carroll, S., & Swain, M. (1993) Explicit and implicit negative feedback: An empirical study of the learning of linguistic generalizations. *Studies in Second Language Acquisition, 15*, 357-386.

Carr-Chellman, A. & Duchastel, P. (2000) The ideal online course. *British Journal of Educational Technology, 31* (3): 229-241.

Chapelle, A.C. (1998) Multimedia CALL: Lessons to be learned from research on instructed SLA, *Language Learning and Technology, 2*: 22–34.

Chun, D. (1994) Using computer networking to facilitate the acquisition of interactive competence. *System, 22* (1): 17-31.

Darhower, M. (2000) Interactional features of synchronous computer-mediated communication in the intermediate L2 class: A sociocultural study. *CALICO Journal , 19* : 249-275.

Dennen, V. P. & Bonk, C. (2007) We'll leave the light on for you: Keeping learners motivated in online courses. In B. Khan (ed.), *Flexible learning in an information society* Hershey, PA; London: Information Science Publishing, 64-76.

Deutschmann, M., Panichi, L. & Molka-danielsen, J. (2009) Designing oral

participation in second life – a comparative study of two language proficiency courses. *ReCALL*, 21 (2): 206-226.

Doughty, C. & Long, M. H. (Eds.) (2003a) *The handbook of second language acquisition*. New York: Basil Blackwell.

Doughty, C. & Long, M. H. (2003b) Optimal psycholinguistic environments for distance foreign language learning. *Language Learning and Technology*, 7 (3): 50-80.

Doughty, C. & Varela, E. (1998) Communicative focus-on-form. In Doughty C. & Williams J. (eds.), *Focus-on-form in classroom second language acquisition* Cambridge, MA: Cambridge University Press, pp. 114-138.

Doughty, C. & Williams, J. (1998) *Focus on form in classroom second language acquisition* . Cambridge, U.K.: Cambridge University Press.

Ellis, R. (1991) Grammar teaching practice or consciousness-raising? In R. Ellis (Ed.), *Second Language Acquisition and Second Language Pedagogy* (pp. 232-241). Clevedon, UK: Multilingual Matters

Emde, S. von der, Schneider, J. & Kötter, M. (2001) Technically speaking: Transforming language learning through virtual learning environments (MOOs) *The Modern Language Journal* , 85 (2): 210-225.

Fleming, S., Hiple, D. & Du, Y. (2002) Foreign language distance education at the University of Hawai'i. In C. A. Spreen (ed.), *New technologies and language learning: issues and options (Technical Report #25)* Honolulu, HI: University of

Hawai'i, Second Language Teaching and Curriculum Center, 13-54.

Freiermuth, M. R. (2002) Online chatting: An alternative approach to simulations. *Simulation and Gaming*, 32 (2): 187-195.

Gallagher, S. (2000) Philosophical conceptions of the self: implications for cognitive science. *Trends in Cognitive Sciences*, 4 (1): 14-21.

Garcia-Carbonell, A., Rising, B., Montero, B. & Watts, F. (2001) Simulation/gaming and the acquisition of communicative competence in another language. *Simulation and Gaming*, 32 (4): 481-491.

Gass, S. (1997) *Input, interaction, and the second language learner*. Mahawh, NJ: Lawrence Erlbaum.

Gass, S. (1998) Apples and oranges: Or, why apples are not oranges and don't need to be: A response to Firth and Wagner. *Modern Language Journal*, 82: 83-90.

Gass, S. (2003) Input and interaction. In C. Doughty & M. H. Long (eds.), *Handbook of second language acquisition*. New York: Basil Blackwell, 224-255.

Gass S. & Selinker (2001) *Second language acquisition: an introductory course*. (2nd ed.) Mahwah, NJ: Lawrence Erlbaum.

Gee, J. (2003) *What video games have to teach us about learning and literacy*. New York: Palgrave Macmillan.

Gee, J. (2005) *Why video games are good for your soul*. Sydney, Australia: Common

Ground.

Godwin-Jones, R. (2003) Emerging technologies. Blogs and wikis: environments for on-line collaboration. *Language Learning and Technology*, 7 (2), 12-16.

Godwin-Jones, R. (2004) Emerging technologies: Language in action: From Webquests to virtual realities. *Language, Learning and Technology*, 8 (3): 9-15.

Hampel, R. & Stickler, U. (2005) New skills for new classrooms: Training tutors to teach languages online. *Computer Assisted Language Learning*, 18 (4): 311-326.

Hill J. R., Raven R., & Han, S. (2002) Connections in web-based learning environments: A research based model for community building. *Quarterly Review of Distance Education*, 3 (4), 383-393.

Hinkel, E. (ed.) (2005) *Handbook of research in second language learning and teaching*. Mahwah, NJ: Lawrence Erlbaum Associates.

Izumi, S. (2002) Output, input enhancement, and the noticing hypothesis. *Studies in Second Language Acquisition*, 24 : 541-577.

Jauregi, K., & Bañados, E. (2008) Virtual interaction through video-web communication: A step towards enriching and internationalizing language learning programs. *ReCALL*, 20 (02), 183-207.

Jenkins, H. & Squire, K. (2004) Harnessing the power of games in education. *Insight*, 3: 5-33.

Kern, R. (1995) Restructuring classroom interaction with networked computers: Effects on quantity and characteristics of language production. *The Modern Language Journal*, 79 (4): 457-476.

Kitade, K. (2008) The role of offline metalanguage talk in asynchronous computer-mediated communication. *Language Learning & Technology*, 12(1): 64-84.

Kol, S., & Schcolnik, M. (2008) Asynchronous forums in EAP: Assessment issues. *Language Learning & Technology*, 12(2): 49-70.

Lai, C., Zhao, Y. & Li, N. (2008) Designing a distance foreign language learning environment. In Goertler, S. & Winke, P. (eds.), *Opening doors through distance language education: Principles, perspectives, and practices*. Texas: CALICO, 85-108.

Lavolette, E. (2009) *Dimdim vs. Elluminate: Fight! Internet*. Retrieved from <http://betsylavolette.com/?p=538>

LeLoup, J. W. & Ponterio, R. (2006) Wikipedia: A multilingual treasure trove. *Language Learning and Technology*, 10(2): 4-7.

Lightbown, P. M., & Spada, N. (1990) Focus-on-form and corrective feedback in Communicative Language Teaching: Effects on second language acquisition. *Studies in Second Language Acquisition*, 12, 429-44.

Liu, X., Magjuka, R., Bonk, C. & Lee, S. (2007) Does sense of community matter? An examination of participants' perspectives of building learning communities in

online courses. *Quarterly Review of Distance Education*, 8 (1): 9 – 24.

Long, M. H. (1991) Focus on form: A design feature in language teaching methodology. In Bot, K. de. Ginsberg R. B & Kramsch C. (eds.), *Foreign language research in cross-cultural perspective* Amsterdam: John Benjamins, 39-52.

Long, M. H. (1996) The role of the linguistic environment in second language acquisition. In Ritchie W. and Bhatia T. (eds.), *Handbook of second language acquisition*. San Diego, CA: Academic Press, 413-468.

Long, M. H. (2005) *Second language needs analysis* . Cambridge: UK. Cambridge University Press.

Long, M. H. (2007) *Problems in SLA*. Mahwah: NJ. Lawrence Earlbaum Associates.

Long, M. H., & Norris, J. M. (2000) Task-based teaching and assessment. In M. Byram (Ed.), *Encyclopedia of language teaching* (pp. 597-603). London: Routledge.

Long, M. H. & Robinson, P. (1998) Focus on form: theory, research, and practice. In Doughty C. & Williams J. (eds.), *Focus on form in classroom second language acquisition*. New York: Cambridge University Press, 15-41.

Menchaca, M. & Bekele, T. (2008) Learner and instructor identified success factors in distance education. *Distance Education* , 29 (3): 231 – 252.

Morris, L. & Finnegan, C. (2008) Best practices in predicting and encouraging student persistence and achievement online. *Journal of College Student Retention*,

10 (1): 55–64.

Morton, H., & Jack, M. A. (2005) Scenario-based spoken interaction with virtual agents. *Computer Assisted Language Learning*, 18 (3), 171-191.

Newlin, M. & Wang, A. (2002) Integrating technology and pedagogy: Web instruction and seven principles of undergraduate education. *Teaching of Psychology*, 24 (4): 325-330.

Ni, S. & Aust, R. (2008) Examining teacher verbal immediacy and sense of classroom community in online classes. *International Journal on E-Learning* 7 (3): 477-498.

Oh, S.-Y. (2001) Two types of input modification and EFL reading comprehension: Simplification versus elaboration. *TESOL Quarterly* , 35 (1): 69-96.

Oliver, R. (1995) Negative feedback in child NS-NNS conversation. *Studies in Second Language Acquisition*, 17: 459-481.

O'Rourke, B. (2005) Form-focused interaction in online tandem learning. *CALICO Journal*, 22 (3): 433-466.

Palloff, R.M. & Pratt, K. (2007) *Building online learning communities: Effective strategies for the virtual classroom*. Jossey-Bass Publishers, San Francisco, CA.

Parker, K., & Chaudron, C. (1987) The effects of linguistic simplification and elaborative modifications on L2 comprehension. *University of Hawaii Working*

Papers in ESL, 6 : 107-133.

Payne, S., & Whitney, P. J. (2002). Developing L2 oral proficiency through synchronous CMC: Output, working memory, and interlanguage development. *CALICO Journal*, 20 (1): 7-32.

Rovai, A.P. (2002a) Building a sense of community at a distance. *International Review of Research in Open and Distance Learning*, 3 (1): 1-16.

Rovai, A.P. (2002b) Development of an instrument to measure classroom community. *The Internet and Higher Education*, 5: 197-211.

Sadera, J., Robertson, J., Song, L. & Midon, N. (2009) The role of community in online learning success. *MERLOT Journal of Online Learning and Teaching* , 5 (2): 277-284.

Schmidt, R. (1990) The role of consciousness in second language learning. *Applied Linguistics*, 11 (2): 129-158.

Schwienhorst, K. (2002) Why virtual, why environments? Implementing virtual reality concepts in computer-assisted language learning. *Simulation and Gaming*, 33(2): 196-209.

Sharrock, W. W. & Watson, D. R. (1987) "Power" and "realism" in simulations and gaming: Some pedagogic and analytic observations. In Crookall, D. Greenblat, C. Coote, A. Klabbers J. & Watson D. (eds.), *Simulation-gaming in the late 1980's* Oxford, UK: Pergamon, 35-42.

Sharwood- Smith, M. (1993) Input enhancement in instructed SLA: Theoretical bases. *Studies in Second Language Acquisition*, 15: 165-179.

Skinner, B., & Austin, R. (1999) Computer conferencing- does it motivate EFL students? *ELT Journal*, 53 (4): 270-279.

Sotillo, S. M. (2000). Discourse functions and syntactic complexity in synchronous and asynchronous communication. *Language Learning & Technology*, 4 (1), 82-119.

Spada, N., & Lightbown, P. M. (1993) Instruction and the development of questions in L2 classroom. *Studies in Second Language Acquisition*, 15 : 205-224.

Stavrositu, C. & Sundar, S. S. (2008) *Can blogs empower women? Designing agency-enhancing and community-building interfaces*. Paper presented at the Conference on Human Factors in Computing Systems.

Steinkuehler, C. (2008) Massively multiplayer online games as an educational technology: An outline for research. *Educational Technology*, 48 (1): 10-21.

Swain, M. (1985) Communicative competence: Some roles of comprehensible input and comprehensible output in its development. In Gass, S. & Madden, C. (eds.), *Input in Second Language Acquisition*, New York: Newbury House, 235-256

Swain, M. (1995) Three functions of output in second language learning. In G. Cook & B. Siedlhofer (eds.), *Principle and practice in applied linguistics*. Oxford, UK: Oxford University Press, pp. 125-144.

Swain, M. & Lapkin, S. (1995) Problems in output and the cognitive processes they generate: A step towards second language learning. *Applied Linguistics* 16: 371-391.

Swan, K. & Shea, P. (2005) The development of virtual learning communities. In Hiltz S. R. & Goldman R. (eds.), *Learning online together*. Mahwah, NJ: Lawrence Erlbaum Associates, pp. 231-252.

Sykes, J. M., Oskoz, A. & Thorne, S. L. (2008) Web 2.0, synthetic immersive environments, and mobile resources for language education. *CALICO Journal*, 25 (3): 528-546.

Taylor, D. (1994) Inauthentic Authenticity or Authentic Inauthenticity? *TESL-EJ*, 1(2), [Avialble from <http://www.tesl-ej.org/wordpress/issues/volume1/ej02/ej02a1/>]. Last accessed 29 August 2010.

Thorne, S. L., & Black, R. W. (2008) Language and literacy development in computer-mediated contexts and communities. *Annual Review of Applied Linguistics*, 27 (1): 133-160.

Trahey, M., & White, L. (1993) Positive evidence and preemption in the second language classroom. *Studies in Second Language Acquisition*, 15: 181-204.

Tomasello, M., & Herron, C. (1989) Feedback for language transfer errors: The Garden Path technique. *Studies in Second Language Acquisition*, 11: 385-395.

Tudini, V. (2003) Using native speakers in chat. *Language Learning and Technology*,

7 (3): 141-159.

VanPatten, B. & Cadierno, T. (1993) Input processing and second language acquisition: A role for instruction. *The Modern Language Journal*, 77: 45-57.

Volle, L. (2005) Analyzing oral skills in voice e-mail and online interviews. *Language Learning and Technology*, 9 (3): 146 – 163.

Warschauer, M. (1996) Comparing face-to-face and electronic discussion in the second language classroom. *CALICO Journal*, 13 (2): 7-26.

Wegerif, R. (1998) The social dimension of asynchronous learning networks. *Journal of Asynchronous Learning Networks*, 2 (1): 34–49.

White, C. (2006) State of the art: Distance learning of foreign languages. *Language Teaching* , 39 (4): 247-264.

Wilkins, H. (1991) Long-distance conversations by computer. *Written Communication* , 8 (1): 56-78.

Williams, J., & Evans, J. (1998) What kind of focus on which form? In Doughty C. & Williams J. (eds.), *Focus on form in classroom second language acquisition* Cambridge: Cambridge University Press, 139-155.

Yamada, M. (2009). The role of social presence in learner-centered communicative language learning using synchronous computer-mediated communication: Experimental study. *Computers & Education* , 52(4): 820–833.

Yano, Y., Long, M. H., & Ross, S. (1994) The effects of simplified and elaborated texts on foreign language reading comprehension. *Language Learning*, 44 (2): 189-219.

Zhang, J. & Walls, R. (2006) Instructors self-perceived pedagogical principle implementation in the online environment. *The Quarterly Review of Distance Education*, 7 (4): 413-426.

Zheng, D. (2004) Learning and reflecting through Quest Atlantis: A multi-national 3D gaming environment for English language learning. In Malpica, F. Welsch F. & Tremante A. (eds.), Proceedings of the International Conference on Education and Information Systems: Technologies and Applications. Orlando, Florida, 209-212.

Appendix 1

Resources that might be helpful when establishing an online foreign language class

(1) Throughout this article, *online* or *distance* instruction refers to instructor-mediated courses where all of the content and interactions are web-based. Online/distance courses are different from *web-enhanced* or *blended* courses, which integrate some online instruction with traditional, face-to-face classroom-based teaching. While the recommendations and practices discussed here are intended for use in fully online courses, most of them can be adapted for web-enhanced or blended language courses as well.

(2) Genuine discourse is that which has not been modified from its original form, while authentic discourse can be created for authentic classroom purposes without necessarily being genuine. Authenticity can be conferred on a text by virtue of the use to which it is put by a particular group in a particular situation. See Taylor (1994) for a discussion of authenticity in language classrooms.

Katharine B. Nielson**University of Maryland, USA**

Marta González-Lloret**University of Hawai'i, Manoa, USA**