Interactive Language Learning on the Web

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The wealth of information available on the Web affords teachers and learners access to language learning resources like never before. Online journals, listservs, newspapers, and magazines provide authentic material for language learners, while teachers can find lesson plans and ideas, exercises, assessment tools, and other materials for use in their classes.

The World Wide Web's capability for interactivity makes it especially exciting as a resource for language teaching and learning. Online language tutorials, exercises, and tests are available to anyone who has access to the Web. This accessibility makes Web-based language learning activities quite attractive to both instructors and learners. Teachers can even create their own interactive language learning activities on the Web, which allows them to tailor the activities to suit their own courses and students.

This digest discusses some of the advantages and challenges for teachers who want to design their own interactive Web-based language learning activities, describes some of the activities produced by language teachers that are already available on the Web, and provides guidelines and resources to help teachers create Web-based activities of their own.

Why Create Your Own Web-Based Language Learning Activities?

A quick search of the Web for interactive language learning activities will yield hundreds of online exercises, lessons, games, and quizzes in many different languages. Although using previously made activities is tempting, there are many advantages to creating your own interactive language learning activities for the Web. These advantages include accessibility, renewability, and adaptability.

Accessibility: By putting course material on the Web, teachers provide students with 24-hour, independent access to course information, and updates to Web pages and new assignments are immediately available to students.

Renewability: Once created, materials can be updated easily and often.

Adaptability: Web-based activities can easily be modified to support students at different proficiency levels or with special needs.

Challenges in Creating Web-Based Activities

For many teachers, the greatest challenge in creating Web-based language learning activities is that they do not have the technical skill and knowledge to do so. Although creating simple Web-based activities requires no more than basic HTML skills, many teachers lack even this. Compounding this problem is the fact that most teachers do not have any time to devote to gaining these new skills.

Another difficulty in creating online activities involves the variability of students' access to computers. What type of computer and browser will they be using? What is the connection speed at which they will be accessing activities? These are questions teachers must answer before creating online activities. If students will be accessing the Web from a variety of computers with a variety of Web browsers and modem speeds, this must be taken into account in designing online activities (Polyson, Saltzberg, & Godwin-Jones, 1996).

Another important issue is the need to design Web pages that meet accessibility guidelines for individuals with disabilities so that students with special needs are not left out. This can make the design of online activities even more difficult. All of the students' needs and capabilities, as well as the teacher's technical skill level and time constraints, should be carefully considered before attempting to design online activities.

What Can You Teach on the Web?

A wide range of basic language skills can be enhanced with the use of Web-based activities. Vocabulary practice, grammar lessons, comprehen-sion exercises, reading and writing tasks, and even pronunciation exercises can be put on the Web and made interactive in a variety of ways.

Reading and Writing Skills With Discussion Boards and Weblogs

Online discussion boards are a good way to hold class discussions and create reading and writing activities for students. Dave's ESL Café[1] provides many examples of this kind of activity. With discussion boards, teachers can post a question or subject to start the discussion, and every response is displayed on the board. Messages are organized by "threads," or subjects. Students can reply to the original question or to other responses, or they can create a new thread of discussion. Online discussion boards like those at Dave's ESL Café can be created easily using a Common Gateway Interface (CGI) script and HTML. (CGI is a method of processing input from HTML forms and is explained in more detail later in this digest.) WWWBoard[2] is a free CGI script available for downloading from Matt's Script Archive. Scripts for Educators[3] offers an array of free scripts along with links to helpful online classes and tutorials on the use of the scripts.

Another way to create online writing assignments or discussions is through a Weblog, or "blog." Students can set up their own free Web sites using these tools. They can create Weblogs quickly and easily using a basic Weblog host like Blogger[4] or Pitas.[5] Students register as a user of the Weblog host and follow the simple guidelines to set up a Web page. Web page templates are provided, or students can create their own design. Once created, students can use their blog as an online journal, to submit coursework, to create a portfolio, or to have an online discussion. Journalism I at HRHS[6] is an example of a blog created by the instructor of a high school journalism course.

Vocabulary and Grammar Exercises With JavaScript

Games and exercises designed to help students learn new vocabulary are easily put on the Web. A typical Web-based vocabulary activity might be a matching exercise like the one created by Liliane Fucaloro at California State Polytechnic University, Pomona, for her beginning French course.[7] In this exercise, words or phrases are matched with definitions via a pop-up menu created with a Web form. Students click on a link at the bottom of the page to see the correct answers.

David Kenosian created a vocabulary matching exercise that provides correction and feedback for his German 101[8] course at Haverford College. He also created a cloze exercise on the simple past form in German that allows students to type in their answers and submit them for feedback. There is also a "hint" button for help.

Both Fucaloro's and Kenosian's exercises were created with JavaScript. JavaScript was also used to create Tex's French Grammar,[9] from the University of Texas at Austin, which provides extensive grammar explications, a verb tutor and conjugator, and grammar practice exercises.

Any online form used for interactive activities such as quizzes and vocabulary and grammar exercises will require either a CGI script or JavaScript. JavaScript is an information collection and feedback tool that is used to make Web pages interactive. Familiar instances of JavaScript on Web pages are alert boxes that pop up to alert the user to an error, status bar text that runs along the bottom of Web pages, and text that appears in the place of an image when the cursor is held over it. While JavaScript is much more complicated than HTML, and most teachers do not have the time or inclination to learn to write scripts, it is possible to find free JavaScripts that can be cut and pasted into the HTML code of a Web page. Many online tutorials exist specifically to teach people how to use previously written JavaScripts. JavaScript Forum[10] provides many such tutorials and an assortment of free scripts to copy. A free JavaScript package that enables users to create a variety of online, interactive activities is available at HotPotatoes Half Baked Software.[11] This site also provides tutorials on how to use the software.

Listening Comprehension and Pronunciation Practice With RealAudio

Listening comprehension exercises, such as fill-in-the-gap exercises done while listening to audio, transfer nicely to the Web. The University of Pennsylvania African Studies Center[12] created Kiswahili exercises utilizing RealAudio plug-ins and fill-in-the-blank exercises that provide vocabulary review and listening comprehension practice. Students download and listen to a short audio piece and fill in missing words in a provided text. They then answer comprehension questions about the text and audio and write a short essay. Answers are then emailed to an instructor for assessment.

John's ESL/EFL Resources[13] has several listening comprehension exercises created with RealAudio and JavaScript. Students first predict answers to questions about a subject by completing a multiple-choice JavaScript form. They then listen to an audio piece and check their work. Randall's ESL Cyber Listening Lab[14] provides excellent examples of how audio files can be used for listening comprehension. This site offers listening exercises that combine RealAudio audio files with JavaScript quizzes.

Audio clips can be put into Web pages to provide exercises for listening comprehension, pronunciation practice, and vocabulary development. Audio files must be put into an appropriate format, such as MIDI (Musical Instrument Digital Interface), then put on a Web page (Warschauer, Shetzer, & Meloni, 2000). When the user clicks on the audio link, the clip is played via a plug-in. A basic tutorial for putting audio on Web pages can be found at Duke University's Center for Instructional Technology.[15]

German For Travelers[16] provides pronunciation practice and new vocabulary words for students through the use of audio clips. The German Electronic Textbook[17] offers a detailed explanation of German pronunciation with sample sound files.

The newest technology in audio on the Web is streaming audio, which provides real-time playing of clip files (Warschauer, Shetzer, & Meloni, 2000). This allows the user to play the clips immediately, avoiding the sometimes time-consuming download of RealAudio clips. More information on streaming audio, including links, tutorial, and product reviews, can be found at Streaming Media World.[18]

Online Assessment With HTML Forms and CGI Script

Online exercises that use JavaScript are limited in their interactivity in that they can only provide a way for students to check their own answers. Teachers may want to test their students online and do their own assessments. It is possible to develop online tests that students fill out and submit to the teacher for grading and feedback.

John's ESL/EFL Resources[19] provides a good example of this type of assessment tool on the Web. Students take an ESL word-form quiz and submit their answers to the Web site. The answers go via email to the instructor, who can correct the work and send feedback directly to the student. This type of online assessment can be done through the use of HTML forms and CGI script.

CGI (Common Gateway Interface) is the standard method of processing input from HTML forms. The CGI script resides on the Web server and runs on command when the corresponding HTML form is submitted (Godwin-Jones, 1998). CGI collects the information from the submitted form and sends it, usually via email, to whoever is collecting that information. CGI is often used with Web surveys, online quizzes and exercises, or anything else that requires the collection of data. There are many CGI scripts available free on the Web. Robert Godwin-Jones' Language Interactive[20] provides several free CGI scripts along with instructions on how to use them.

Conclusion

The development of Web-based language teaching and learning activities is sure to continue to be an exciting and growing field. While computer programmers, instructional designers, and computational linguists steadily push the extremes of the field, language instructors can use the basic tools of discussion boards and Weblogs, HTML, JavaScript, RealAudio, and CGI scripts to create dynamic, interactive, and functional materials for their courses on the World Wide Web.

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Notes

[1] Dave's ESL Café discussion boards http://www.eslcafe.com/discussion/

[2] WWWBoard http://www.worldwidemart.com/scripts/wwwboard.shtml

[3] Scripts for Educators http://www.linguistic-funland.com/scripts/

[4] Blogger http://www.blogger.com

[5] Pitas http://www.pitas.com

[6] Journalism I at HCRHS http://weblogs.hcrhs.k12.nj.us/journ1/

[7] Beginning French vocabulary exercise http://www.class.csupomona.edu/efl/french103/vocabquizdossier10.html

[8] German 101 http://www.haverford.edu/germ/kenosian/voc101/101kap1_page.htm

[9] Tex's French Grammar http://www.lamc.utexas.edu/tex/

[10] JavaScript Forum http://members.tripod.com/~JavaScriptForum/

[11] HotPotatoes Half Baked Software http://Web.uvic.ca/hrd/halfbaked/

[12] University of Pennsylvania African Studies Center http://ccat.sas.upenn.edu/plc/kiswahili/kiswa1a.html

[13] John's ESL/EFL Resources http://www.johnsesl.com/listening/phone/

[14] Randall's ESL Cyber Listening Lab http://www.esl-lab.com/

[15] Duke University's Center for Instructional Technology http://cit.duke.edu/resource-guides/tutorial-web-multimedia/05-audio-basics.html

[16] German For Travelers http://www.germanfortravellers.com/learn/index.html)

[17] German Electronic Textbook http://www.wm.edu/CAS/modlang/gasmit/pronunciation/pronunce.html

[18] Streaming Media World http://www.streamingmediaworld.com/

[19] John's ESL/EFL Resources http://www.geocities.com/Athens/Olympus/4459/wordform.html

[20] Language Interactive http://128.172.170.24/cgi/interact.html