REVIEW OF *HOT POTATOES*

Title	*Hot Potatoes,* Version 5
Authors	Stewart Arneil, Martin Holmes, and Hilary Street
Platforms	Windows and Macintosh
Minimum Software Requirements	Netscape Navigator or MS Internet Explorer versions 4 or above, with JavaScript enabled. Some modules, JMix and JMatch, use DHTML and require version 5+ browsers.
Publishers	Half-Baked Software, Inc. http://web.uvic.ca/hrd/hotpot
Support Offered	E-mail support direct from author, Martin Holmes, at mholmes@uvic.ca. The Hot Potatoes Web site posts frequently asked questions and has a bulletin board where questions can be posted to be answered by users.
Target Language	Any Roman character set language (program supports the use of accented characters)
Target Audience	Language teachers
Price	Free for non-profit individuals or educational institutions, with the condition that materials produced are freely available to anyone via the Web. Otherwise, license starts with 1 user for $100 US. Large publication license: US $350.

Reviewed by Paula Winke, Georgetown University, and David MacGregor, the Center for Applied Linguistics

Overview

The program *Hot Potatoes*, currently produced by Half-Baked Software, Inc., was designed to allow teachers to make interactive, Web-based exercises that can be accessed by students at any Internet-capable computer terminal with a standard Web browser. *Hot Potatoes* uses both HTML and JavaScript; however, one does not need to know these languages to make the Web-based exercises. Instead, teachers use the program's exercise templates to create exercises on Web pages which then can be uploaded to a server where students access them. *Hot Potatoes* can create six different types of Web-based exercises which can stand alone or be linked to other exercises to form a sequence of tasks. Students can correct their own work based on the clues and feedback set up in advance by the teacher. *Hot Potatoes* also allows the teacher to specify an email address to which scores are sent. Although no knowledge of Web design is necessary to create the Web page exercises, teachers with such knowledge can customize the materials to a greater degree by manipulating the program code.

Description

Hot Potatoes is actually a software suite comprised of six different programs, referred to as *modules* in this review. Each module can be used to create a different type of interactive, Web-based exercise. The six different modules are referred to as "potatoes," and consist of JBC, JQuiz, JMix, JCross, JCloze, and JMatch, with each name referring to the type of exercise the module creates. A summary of the types of exercises that can be created with each module, as well as links to online interactive examples created by the authors of this review,[1] are presented in Table 1.

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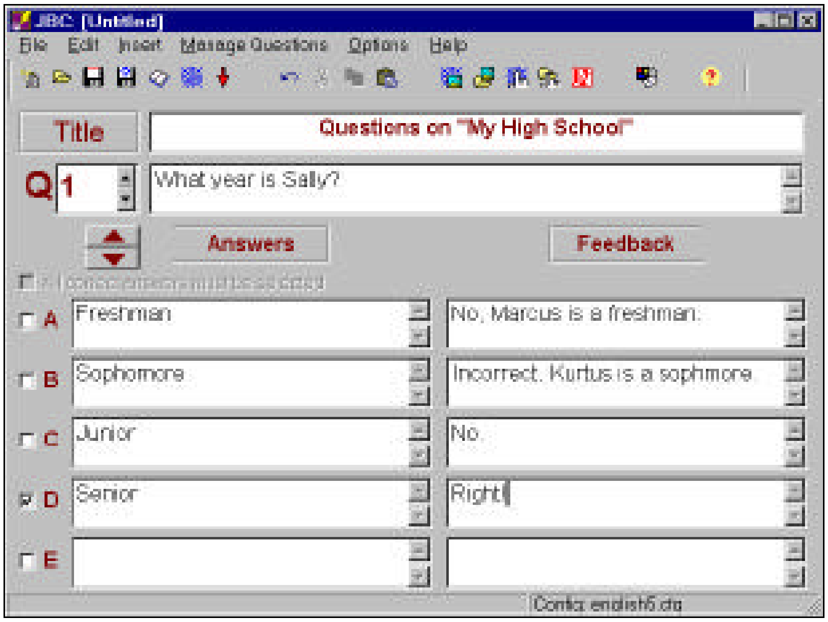
Table 1. The Six Modules to Make Exercises in *Hot Potatoes*

Module	**Exercise type**	**What students do**	**Interactive example**
1. JBC	multiple-choice quiz	choose the correct answer for each question	http://epsilon3.georgetown.edu/~pmw2/hotpot/JBCSample.htm
2. JQuiz	text-entry quiz	type in words, phrases or even sentences (open-ended)	http://epsilon3.georgetown.edu/~pmw2/hotpot/JQuizSample.htm
3. JMix	jumbled-word exercise	arrange jumbled words into phrases or sentences	http://epsilon3.georgetown.edu/~pmw2/hotpot/JMixSample.htm
4. JCross	crossword	fill in the blanks to complete the crossword puzzle	http://epsilon3.georgetown.edu/~pmw2/hotpot/JCrossSample.htm
5. JCloze	fill-in-the-blank exercise	enter the words that are missing	http://epsilon3.georgetown.edu/~pmw2/hotpot/JClozeSample.htm
6. JMatch	matching exercise	match items in the 1st column with those in the 2nd	http://epsilon3.georgetown.edu/~pmw2/hotpot/JMatchSample.htm

JBC allows teachers to create multiple-choice questions with as many answer choices as they like (see Figure 1). JQuiz is used to create open-ended questions, which differ from multiple-choice questions in that the student types the answer in a text-field, rather than choosing from a list of options. JBC and JQuiz both allow exercises to be programmed with an unlimited number of correct answers. For example, for the question "What is the capital of the United States?" the teacher can specify "DC," "D.C.," "Washington," and other versions of the name as correct answers. *Hot Potatoes* also gives teachers the option of making answers case-sensitive, and of allowing students to see all correct answers by having a "Show Answer" button displayed.



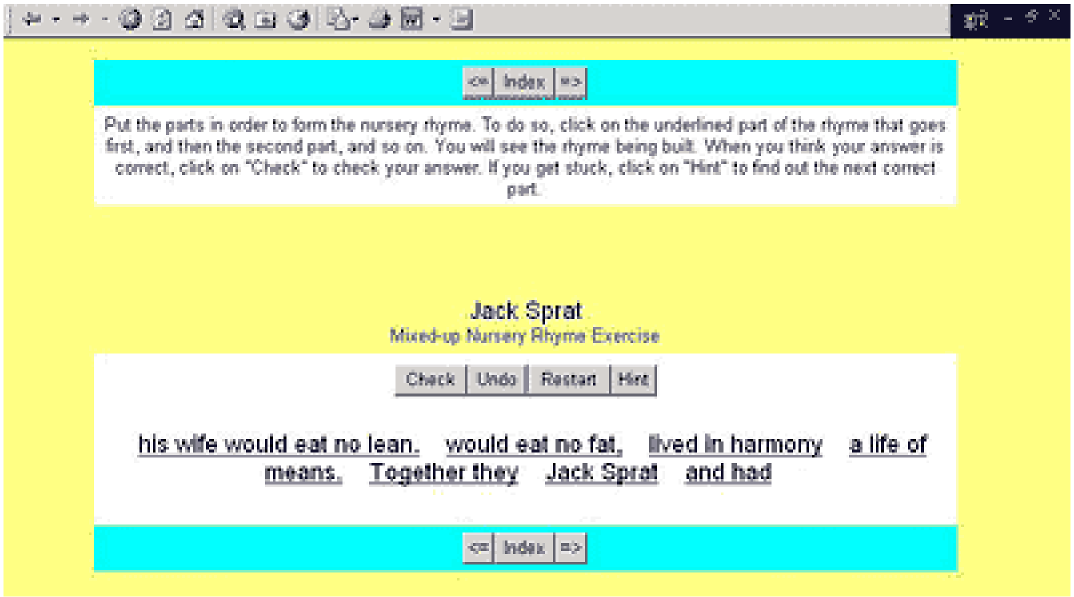
Questions on "My High School"

Q 1 What year is Sally?

	Answers	Feedback
□ A	Freshman	No, Marcus is a freshman.
□ B	Sophomore	Incorrect. Kurtus is a sophmore
□ C	Junior	No.
☑ D	Senior	Right
□ E		

Figure 1. Creating a multiple choice question

JMix is for the creation of exercises of scrambled sentences, paragraphs, or stories (see Figure 2). Students drag and drop the sentence fragments to put them in order, or they can click on the fragments sequentially to put the text together. The teacher may add an unlimited amount of additional acceptable sentences, and can set up a warning to be shown if the alternate sentence put together by the student does not contain all of the words or punctuation of the original, preferred sentence.



Put the parts in order to form the nursery rhyme. To do so, click on the underlined part of the rhyme that goes first, and then the second part, and so on. You will see the rhyme being built. When you think your answer is correct, click on "Check" to check your answer. If you get stuck, click on "Hint" to find out the next correct part.

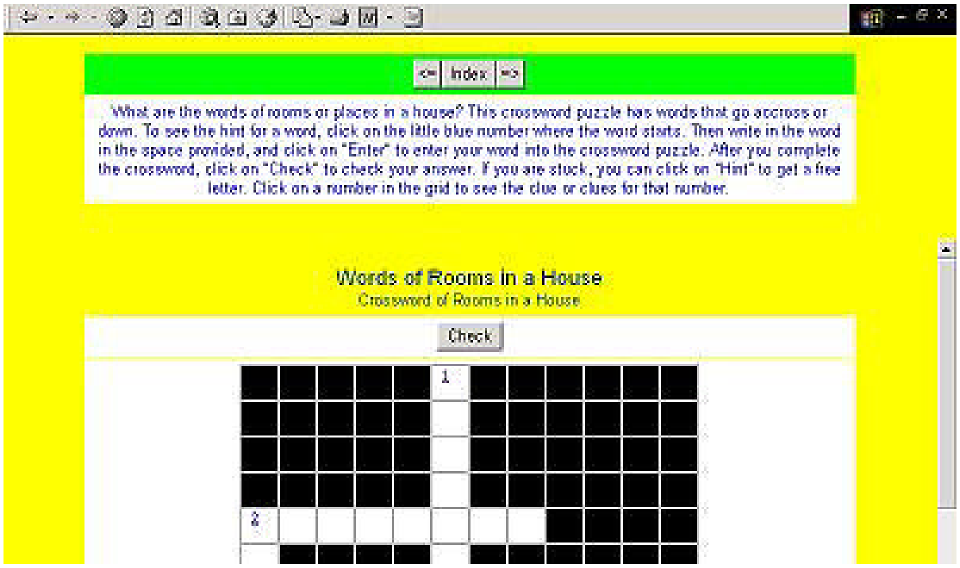
Jack Sprat

Mixed-up Nursery Rhyme Exercise

his wife would eat no lean. would eat no fat, lived in harmony a life of means. Together they Jack Sprat and had

Figure 2. JMix exercise

JCross can be used to design crossword puzzles with customized puzzle layout and optional clues for each word. The module begins with a blank grid template, and the teacher designs the puzzle by entering the words directly into the grid, or by simply providing a list of words. Words can run in the order of left to right or top to bottom. When finished, the module automatically crops the grid into a crossword puzzle and automatically assigns a number to each word. To see the clue for a word, the student clicks on the number in the crossword puzzle where the word begins.



What are the words of rooms or places in a house? This crossword puzzle has words that go accross or down. To see the hint for a word, click on the little blue number where the word starts. Then write in the word in the space provided, and click on "Enter" to enter your word into the crossword puzzle. After you complete the crossword, click on "Check" to check your answer. If you are stuck, you can click on "Hint" to get a free letter. Click on a number in the grid to see the clue or clues for that number.

Words of Rooms in a House

Crossword of Rooms in a House

Figure 3. JCross example exercise

JCloze is a traditional cloze or fill-in-the-blank exercise template which allows the teacher to type in a text of any kind (paragraph, ordered-sentences, etc.), and then choose the words be left blank for students to fill in. Furthermore, a separate reading text can be entered (manually or from an HTML file) upon which the cloze-type questions can be based.

JMatch allows the teacher to create matching and sequencing exercises based on two columns of items. JMatch allows for easy insertion of pictures, graphics, and images, so that the matching exercise could consist of pairing vocabulary words with the corresponding pictures.

All six modules of the *Hot Potatoes* program suite have several useful options that allow the teacher to customize exercises within the bounds of the basic templates. For example, when creating exercises, the teacher can customize feedback such that students receive a different message according to which incorrect answer they choose (see Figure 1). Similarly, the teacher can choose to provide students with access to a "Clue," such as the first letter of a word in a crossword puzzle. Some of the modules also allow the teacher to enter a reading text upon which the questions can be based. Furthermore, these texts can be set to disappear after a pre-specified amount of time in order to add a timed component to the exercise, although students may click a button to see the text again. All modules except JCross allow the teacher to easily incorporate graphics, sounds, and video into exercises. The modules also allow teachers to customize the general appearance of the Web page output: They can specify the colors of the text, titles, and backgrounds. It should also be noted that *Hot Potatoes* does not support non-Roman fonts.

There is also a Common Gateway Interface (CGI) function tab in all six modules which allows the results to be sent to a designated email address, as long as the host server is equipped with the proper FormMail.pl Perl script. *Hot Potatoes* sends only the student's ID, the name of the exercise, and the overall score; the script does not record the actual questions that were incorrectly answered, nor does it record the number of attempts made by the student.

Hot Potatoes offers extended support for those who have paid for a commercial license. For those who do not have a commercial license, there is free email support at mholmes@uvic.ca or hotpot@uvic.ca, and the Bulletin Board Internet help function of *Hot Potatoes*, accessible from all modules, also offers free help on a list of topics.

Evaluation

Hot Potatoes will be evaluated according to the following three questions: Does the program permit the creation of language learning exercises that are consistent with second language acquisition theory? Is the program user friendly? And finally, is the program appropriate for language testing?

The use of technology by teachers of second or foreign languages has many benefits, one of which includes the increase in the amount of exposure to and potential interaction with the target language outside of the classroom setting. *Hot Potatoes* exercises may fall into this category of beneficial technological use when accessed by students remotely as supplementary classroom work. Moreover, the exercises can be shared with teachers worldwide, as long as they have access to the Web.

The effectiveness of the tasks, however, depends on the use the teacher makes of the program. Research suggests that learners benefit from task-based instruction, in which they are engaged in tasks with a primary focus on content rather than language (Long, 1996). Some of the characteristics of good task-based activities are that they focus on meaning, provide a communication problem to solve, have a relationship to real-world activities, and are not concerned with language display (Skehan, 1998). *Hot Potatoes* exercises could form the basis of task-based activities. For example, two or more students new to a school could share a computer terminal and cooperate to complete a JMatch activity in which they must identify various buildings on campus (see JMatch example). A drawback of *Hot Potatoes*, however, is that it can more easily be used to create form-focused activities in which the "interaction" is limited to interaction between the user and the pre-scripted feedback provided by the creator of the activity. Such activities can only be considered interactive in the narrowest of senses, and amount to little more than online versions of traditional grammar activities. Therefore, it seems exercises made with *Hot Potatoes* can promote SLA, but the extent to which they do so depends on the content of the exercises created by the teacher. In short, *Hot Potatoes* is a tool, and, like even the best of tools, its value depends on the knowledge and creativity of the user.

We found the six modules of *Hot Potatoes* logical and easy to use. They do not require programming knowledge, yet they still offer flexibility for teachers who have more advanced knowledge. To familiarize ourselves with the modules, we first read the *Hot Potatoes* tutorial offered with the program, which took about 30 minutes, and then created a basic, sample exercise with one of the modules in about an hour. Because all modules are similar in design and share basic features, learning one of the *Hot Potatoes* modules makes it easy to learn the other five.

It must be emphasized that the creators of *Hot Potatoes* did not intend the program as a test-design package, nor should it be used as such. There are no provisions to prevent the student from cheating, and no security measures are provided. Moreover, the limited nature of the CGI Perl script feature, which does not include detailed information regarding students' responses to individual items, makes it impossible for teachers to identify students' strengths and weaknesses. Instead, the intended use of the program is to permit the creation of exercises that allow students to work their way towards correct answers based on the feedback provided. Still, some teachers may be tempted to use *Hot Potatoes* exercises as tests. For one, *Hot Potatoes* itself refers to two of the exercise modules as "Quizzes." Furthermore, there is a dearth of affordable language testing software. Because Hot Potatoes is such a valuable, free (for non-profit educational users who make their pages available on the Web) and easy-to-use tool for creating exercises, it is understandable that teachers may overestimate the capabilities of the program and thus try to use it for testing purposes. Nonetheless, language teachers who need a secure testing solution are advised to look at server-side, commercial products, such as Question Mark or Test Pilot (reviewed this issue) with secure browser options and statistical test reporting functions. However, it must be noted that these commercial software testing products were not designed specifically for *language* testing, although they can be adapted for such use. On the other hand, *Hot Potatoes* was designed specifically for the creation of language exercises, but should not be used for testing.

Summary

The *Hot Potatoes* program, which consists of modules for creating six different types of exercises, is an excellent resource for creating on-line, interactive language learning exercises that can be used in or out of the classroom. These types of exercises can be especially useful in language learning laboratories with Internet access, or for remote learning. When matched with both appropriate content and motivated students, *Hot Potatoes* exercises seem likely to promote second language acquisition. *Hot Potatoes'* user-friendly modules also allow more adept teachers to create complex, interactive exercises. *Hot Potatoes* is not intended as testing software, and should not be used as such. Nevertheless, the *Hot Potatoes* program suite provides teachers with flexible, easy-to-use modules for creating Web-based language exercises that students can work on while also receiving feedback that will direct them towards correct answers.

NOTE

1. In the creation of these sample exercises, the authors did not alter the original HTML source code nor change any of the basic functions of the modules in any way. Links to more Hot Potatoes exercises are listed on the University of Victoria Research and Development team's Web site.

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