

愛工大教員が利用可能な JavaScript クイズプログラム

A JavaScript Quiz Program that May Be Used by AIT Teachers

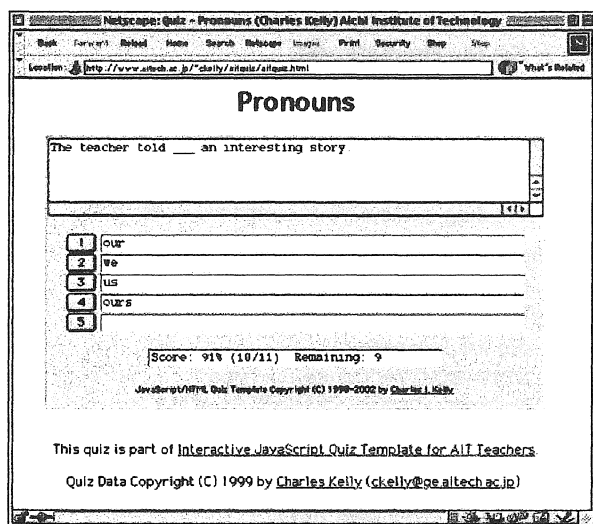
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Abstract: This article explains to teachers of Aichi Institute of Technology how they can use my JavaScript multiple-choice quiz template to put self-study quizzes in their own fields of study on the www.aitech.ac.jp web server. This article is also available at <http://www.aitech.ac.jp/~ckelly/aitquiz/> with clickable links.

Introduction

The JavaScript multiple-choice quiz template I developed for the *Interactive Java Script Quizzes for ESL Students* <www.aitech.ac.jp/~iteslj/quizzes/js/> web site may also be used by other teachers at Aichi Institute of Technology to create self-study quizzes for their own students. This script may be used by any



teacher on our campus to put his/her original quizzes on the www.aitech.ac.jp server.

This paper will explain how it can be done.

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Background and Development of This JavaScript Quiz Program

The basic design and concept for this quiz began in 1983 when I was developing a self-study quiz program for the Apple II computer using AppleSoft Basic. It was further refined when I ported it into MS-BASIC for the NEC-9801 computer. When I rewrote the quiz program for the Macintosh computer using HyperCard, I expanded and added more refinements.

In 1998, The Internet TESL Journal made the decision that JavaScript had become stable enough to add a JavaScript section to our existing quiz project <<http://www.aitech.ac.jp/~iteslj/quizzes/>>.

In developing this quiz program for the Web, the following criteria were considered important.

- It must have a small file size and be fast-loading.
- It must be intuitive for the user to use.
- It must work on various computers using various web browsers.
- It must be acceptably displayed on various computers using various window sizes.

Since other teachers would be submitting data to our quiz project, these additional criteria were also important.

- The data for the quizzes must be in a format that was easy for others to create.
- This data must be in a format that was easy for us to proofread before putting the quiz online.
- This data must be easy for us to insert into the quiz template.

Features of this Multiple-Choice JavaScript Quiz Program

- Students are given immediate feedback after answering each question.
 - The students are immediately told whether each chosen answer was correct or wrong.
 - The score is calculated after each question is answered.
- Students can take the same quiz more than once without becoming bored.
 - The order that the questions appear is randomized.
 - The order of the choices are randomized.
- Students have a chance to learn while being quizzed.
 - Questions that a student missed are repeated again at the end of the quiz.
 - Since the order of the choices are randomized, a student must be able to choose the correct choice and not just remember that the answer was "1", "2" or "3."
- The template is well-written for the Web.
 - The file size is small, so it downloads quickly.
 - The JavaScript quiz template has been tested and works on all major web browsers and also a some not-so-major web browsers.
 - Parts that are reused are not included in each page but are in a cacheable external JavaScript file. This speeds up the download time even more when a student chooses to take another quiz.

How to Write the Question Data

Each question item begins with a quote (") followed by the question, then a tab, then the correct choice followed by a tab, and then followed by up to four distracters, each separated by a tab. There must be at least one distracter. The item ends with a quote. Each item is separated from the following item by a comma (,).

Here is a sample of how the quiz data looks. (You cannot actually see the tab character, but the multiple spaces are tabs.)

```
"I want to sit between you and ____ .   him
he",
"Her uncle is a doctor, isn't ____?   he
she it",
"Bob and Ted live near ____ school.
their  they  them  they's",
"Do you have a dictionary?#nYes, I have a
good ____ .   one   it   another   some
mine"
```

Here are things that you should notice about how the data is written.

- In the first question, the question item is "I want to sit between you and ____", the correct answer is "him" with "he" being the distracter.
- The second question item has two distracters (three choices), the third question has three distracters and the fourth item has four distracters.
- The fourth question item uses "#n" to insert a line break.
- There is no comma after the last question item.

How to Put Together the Web Page

Step 1: Download the template from the Web.

Download the JavaScript quiz template at <http://www.aitech.ac.jp/~ckelly/aitquiz/aitquiz.html>. You can do this by going to the page and saving the page "as source" to your own computer's hard disk.

Step 2: Open the template file in a text editor.

You may use a word processor or a text editor. If you use a word processor, be sure that you save the HTML file "as text."

Step 3: Set the character set.

The CHARSET should be set to *ISO-8859-1* if the language is only English. For Japanese, it should be set to "x-sjis", "shift-jis", or "euc-jp" depending on which encoding system your computer uses.

Example for English:

```
<META HTTP-EQUIV="Content-Type"
CONTENT="text/html; CHARSET="ISO-8859-1">
```

Example for Japanese:

```
<META HTTP-EQUIV="Content-Type"
CONTENT="text/html; CHARSET=x-sjis">
```

Step 4: Replace the question data in the quiz template with your own data.

Delete these lines and put your data in the same place in the template.

```
"I want to sit between you and ____ .   him
he",
```

[All except for the first and last line have been deleted to save space.]

```
"The teacher told ____ an interesting
story.   us   we   our   ours"
```

You must remember that there should be no comma after the last line of data. If you get an error message when testing your quiz, the most likely cause is that you have put a comma after the last line of this data.

Step 5: Put the quiz title and other descriptive information in place of the existing data in the quiz template.

- Step 5a: Put the title of your quiz in place of *Pronouns*.
title="Pronouns"
- Step 5b: Put your name in place of *Charles Kelly*.
writer="Charles Kelly"
- Step 5c: Put the copyright year, most likely this year, in place of *1999*.
copyright="1999"
- Step 5d: If you want a background color other than light yellow, put the RGB color's HEX number in place of *FFFFCE*.
bgcolor="FFFFCE"
 - Other good colors to try are CEFFFF, FCFCEFF, CECEFF, FFCECE, CEFFCE and DEDEDE.
- Step 5e: If you want to put instructions just under the title of the quiz, put the instructions between the quotes.
directions=""
 - Step 5f: Replace *http://www.aitech.ac.jp/~ckelly/* with your own URL.
url=http://www.aitech.ac.jp/~ckelly/
 - Step 5g: Replace *ckelly@ge.aitech.ac.jp* with your own email address.
email=ckelly@ge.aitech.ac.jp
 - If you prefer that your email address not be listed, then it should look like this: email=""
 - Step 5h: Put the title of your group of quizzes here.
sitetitle="Interactive JavaScript Quiz Template for AIT Teachers"
 - If you only have one or two quizzes, then you should put your home page title here. For example: sitetitle="Charles Kelly's Web Site"
 - Step 5i: Put the URL for the title page of your group of quizzes.
siteurl=http://www.aitech.ac.jp/~ckelly/aitquiz/
 - If you only have one or two quizzes, then this should probably be your main home page URL.
 - Other Things That May Be Changed in the HTML Template
 - You may translate this part into Japanese.
<NOSCRIPIT>This page requires a JavaScript-enabled browser.
You have JavaScript disabled or a browser that doesn't support JavaScript.<P></NOSCRIPIT>

- You may customize the meta description and keywords.

```
<META NAME="description" CONTENT="This is an
interactive multiple-choice JavaScript
quiz.">
<META NAME="keywords" CONTENT="interactive
javascript quiz, multiple-choice quiz">
```

Generate the Quiz Data Automatically

To make things easier for those who do not want to code the actual data statements needed for the quiz, I wrote a Perl script that will generate the quiz for teachers. This allows teachers to write the quiz data in a regular word processor, then copy and paste the data into a form on the Web.

To generate the quiz automatically the data must be in this format.

- 2 RETURNS before each question (one blank line) (Except the first question.)
- 1 RETURN after each line of the question item.

```
Line 1 - QUESTION
Line 2 - CORRECT Answer
Line 3 - INCORRECT Answer - At least 1 is
required.
Line 4 - INCORRECT Answer - The rest are
optional.
Line 5 - INCORRECT Answer
Line 6 - INCORRECT Answer
Line 7 - INCORRECT Answer (Up to 5 incorrect
choices.)
```

Example:

```
I ___ a dog.
have
has
```

```
I ___ in Japan.
live
living
lives
is living
```

```
Let's ___ tennis tomorrow.
play
playing
plays
played
to play
```

After writing the quiz data, copy the data, go to <http://www.aitech.ac.jp/~iteslj/c/qw/qw-aitquiz.html> and paste it into the form. Fill out the author's name and a few other pieces of data then click the button and the quiz will be generated for you. After testing the

quiz, save the web page "as source," then upload it to your directory on the www.aitech.ac.jp server.

How to Use the Quiz

The quiz will only work on the www.aitech.ac.jp web server, so you must upload the quiz to the server before you can use it. You will not be able to test whether your quiz works or not until it has been uploaded to the www.aitech.ac.jp web server.

The HTML Code for the Quiz

This is the HTML code in the template file at <http://www.aitech.ac.jp/~ckelly/aitquiz/aitquiz.html>. The text in italics may be changed. You should not change the other code in the page.

```
<HTML><HEAD>
<META HTTP-EQUIV="Content-Type" CONTENT="text/html; CHARSET="ISO-8859-1">
<META NAME="description" CONTENT="This is an interactive multiple-choice JavaScript quiz.">
<META NAME="keywords" CONTENT="interactive javascript quiz, multiple-choice quiz">
<script>f=new Array();function ST(){};function WB(){};</script><script
src="/~ckelly/aitquiz.js"></script>
<SCRIPT><!--
title="Pronouns"
date="April 23, 1999"
writer="Charles Kelly"
copyright="1999"
bgcolor="FFFFCE"
directions=""
url="http://www.aitech.ac.jp/~ckelly/"
email="ckelly@ge.aitech.ac.jp"
sitetitle="Interactive JavaScript Quiz Template for AIT Teachers"
siteurl="http://www.aitech.ac.jp/~ckelly/aitquiz/"
q=new Array("",
"I want to sit between you and ___. him he",
"It was my brother who went with ___. her she",
"That coat of ___ is very warm. his him",
"Her uncle is a doctor, isn't ___? he she it",
"She has an apple in ___ hand. her she hers",
"___ school is in the mountains. Our We Us Ours",
"I gave ___ my pencil. him he his",
"That old woman is kind to ___. us we our ous",
"Larry and Frank are friends of ___. ours our us we",
"William and Tracy love ___ dog. their they them",
"We are glad that you could stay with ___. us our ours we",
"Do you have a dictionary?#nYes, I have a good ___. one it another some mine",
"The dog ate ___ meal. its it's it",
"The bird sang ___ happy tune. its it's it",
"Bob and Ted live near ___ school. their they them they's",
"He came to see ___ last night. me I my",
"Listen to ___ carefully. her hers she",
"My car is new, but ___ is old. his him he's",
"The teacher told ___ an interesting story. us we our ours"
);document.write("<TITLE>Quiz - "+title+ (" "+writer+) Aichi Institute of Technology</TITLE>")
//-->
</SCRIPT><TITLE>Multiple-choice JavaScript Quiz</TITLE></HEAD><body text="#000000"
link="#0000FF" vlink="#600042" onload="ST()">
<CENTER><NOSCRIPT><b>This page requires a JavaScript-enabled browser</b><BR>You have JavaScript
disabled or a browser that doesn't support JavaScript.<P></NOSCRIPT>
<SCRIPT>WB();</SCRIPT></BODY></HTML>
```

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