

A Resource for Preparing On-Line Quizzes for Visuals Such as Graphs, Photographs and Diagrams

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We have designed a java applet for course websites that can be easily modified by instructors to produce self-help or graded web quizzes on any visual desired. Instructors can provide more feedback if they wish and place pop-up menus of questions and answers anywhere on the visual they provide. They can also determine whether students report unique confirmation numbers granted on submission (default) or students' grades are sent to some other website utility.

Keywords: quizzing resource, build visual focused quizzes, on-line quiz builder

Link to Original Poster: <http://www.ableweb.org/volumes/vol-34/poster?art=62>

Introduction

We had an on-line exercise on respiration in which students chose from pop-up menus on a diagram of the cell the products of various reactions, and in the process associated them with their proper location, especially with regard to location within the mitochondrion. Students were only provided feedback as to the number correct after each attempt (Niedzlek-Feaver and Black, 2012).

Students deemed this exercise most challenging and yet one of "best" learning experiences in the course. Ten image questions and 12 answers for each question made guessing next to impossible and students were only allowed to submit their fully correct attempts.

We have designed a new very flexible java applet based on this exercise that allows instructors to design and build such exercises using their own questions, answers and graphics.

Literature Cited

Niedzlek-Feaver, M. and B. L. Black. 2012. Sometimes less is more. Pages 68-69, in *Quick Hits for teaching with technology*. Indiana University Press. 129 pages.

Acknowledgements

We would like to acknowledge the contribution of Doug Ivers (www.onetimesoftware.com), our programmer, who has for years produced for us the java applets that turn our ideas and designs into flexible and most useful learning tools.

About the Author

Marianne Niedzlek-Feaver received her Ph.D. from the University of Michigan. As an evolutionary ecologist, she is interested in identifying factors that shape the mating systems of grasshoppers and katydid. She currently teaches Evolution, Darwinian medicine, Invertebrate Zoology, Parasitology (distance course) and Introductory Biology courses. She has received various grants to improve the laboratory and active learning classroom experience, or develop interactive on line teaching resources, has published in these areas, and is a member of the NCSU Academy of Outstanding Teachers.


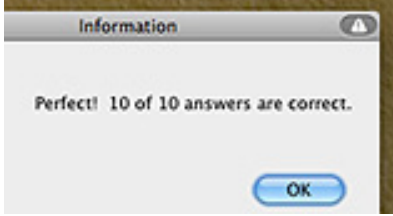
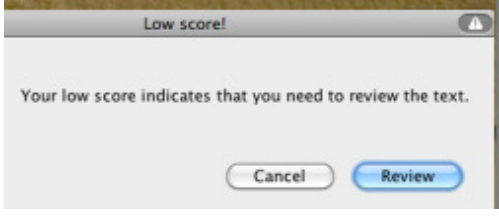
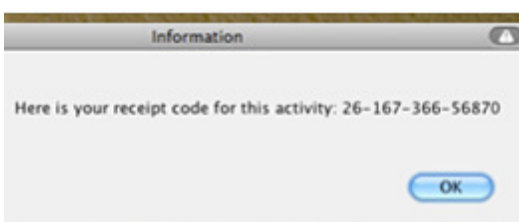
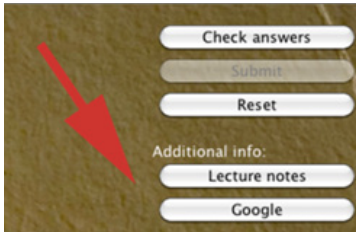
Notes for the Instructor

This resource will be available for download at: <http://www.ncsu.edu/project/interactivebiology/>



Figure 1. Example of a self-help quiz developed using the image builder. Students in this exercise are asked whether the features indicated are morebird or lizard like. The graphic is the author's rendition of fossils available for *Archaeopteryx*.

Table 1. Features.

<p>Instructors can use images of any size and place as many boxes containing as many answers as needed on the image.</p>	
<p>Students by default are simply told the number of answers that are correct.</p>	
<p>Instructors may choose to provide feedback to students once answers are checked and submitted.</p>	
<p>A unique confirmation number is generated for each student by default. Or instructors can opt that students' grades be sent to some other website utility.</p>	
<p>Links may be provided to additional information or activities.</p>	

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