University of California (UCMP)
Teacher Web Site on Evolution:
PILOT STUDY OF "THE ARTHROPOD STORY," AN INTERACTIVE STUDENT MODULE
Spring-Summer 2005

INTRODUCTION

From March through May 2005, Rockman *ET AL* (REA) evaluation staff conducted a pilot study of "The Arthropod Story," an interactive module developed for the University of California Museum of Paleontology's (UCMP) student Web site on evolution, with a group of middle and high school students and their teachers. The purpose of this summative evaluation was to collect qualitative and quantitative data on the clarity, appeal, and usability of the module among teachers and students who use the module in their classrooms. The evaluation was also designed to measure the site's effectiveness at increasing students' knowledge of concepts related to arthropods and evolution.

Of the 8 teachers recruited for the study, 7 completed the evaluation activities, comprising teacher and student paper-based surveys, as well as a pre- and post-test of student knowledge. One additional (middle school) teacher whose student data was lost in the mail completed the teacher survey. This report synthesizes the data collected from 8 teachers, 111 high school students, and 89 middle school students.

METHODOLOGY

Instruments: The student survey requested background information about students' frequency of computer use, and students' feedback on the clarity of the site's content and presentation, ease of navigation, and overall appeal of the site. It also asked students to rate the extent to which the site enhanced their learning and impacted their knowledge about arthropods and evolutionary concepts.

The teacher survey began by asked participating teachers for demographic information about the class in which the module was piloted, and for information about the context and length of time in which their students used the site. The survey also asked teachers to rate the Web site on its usefulness for teaching several evolutionary concepts, its quality in comparison to other available resources, and the clarity and usefulness of specific site components. The survey then asked teachers to give their impressions of students' reaction to the site and how effectively they felt the site increased their students' knowledge about aspects of arthropods. Future plans for using the site, barriers to using the site, and recommendations for improvement were additional dimensions that the teacher survey addressed.

The student pre- and post-test was a 5-item instrument developed by UCMP, consisting of 1 open-ended item and 4 multiple-choice items designed to measure students' learning of concepts related to arthropods and evolution. The maximum score for the test was 8 points: the open-ended item required multiple responses and was thus worth 4 points, whereas each of the 4 multiple-choice items was worth 1 point each.