

THE BIOLOGY PROJECT WEB SITE: EVALUATING EDUCATIONAL EFFECTIVENESS

S

At the 2004 meeting of Slice of Life, we presented the results of a usability study of The Biology Project (<http://www.biology.arizona.edu>), a web site which presents various modular topics and activities in biology used by a diverse population of students, teachers, self learners and the general public at all levels, from AP High School curriculum through medical school.

Our original intent when we established the site in 1995 was to provide adjunct learning materials for our own undergraduate biology students, as well as review materials and a few specific topics for beginning medical students. The breadth of our current audience was well beyond anything we had envisioned when originally designing the site.

This year, we are attempting a more detailed analysis of the educational effectiveness of the site in two primary contexts: (1) how well the site facilitates student learning outcomes for target learner populations – that is, college undergraduate biology students and medical school students seeking a “refresh” of their basic science knowledge and (2) how well the web site facilitates the teaching of biology and related subjects in target educational settings – again, undergraduate biology courses and beginning medical students – while avoiding any attempts to quantify or qualify use by our unanticipated audiences such as AP high school students and general learners. We will attempt both formative and summative evaluations. The formative evaluation will obtain information for the purpose of improving the educational effectiveness of the site for the target audience. The summative evaluation will focus on the merit and worth of the site as it presently exists, with a special emphasis on demonstrating value to current and prospective funders. In order to maintain and improve the site, continued funding of a team of developers, graphic artists and educational experts is essential.

Our statistical analysis of web site log data indicates we have approximately 500,000 site visitors per month, of whom approximately 300,000 are unique. Our poster session will present the process by which the study was designed, the methods used for evaluation, and preliminary findings and recommendations of this evaluation, to be completed by early June of this year. The study and its preliminary results should be of interest to everyone developing educational materials with an eye toward rigorous evaluation of effectiveness. In an era of limited resources and competitive priorities for funding, such evaluation is increasingly a key component in obtaining funding and personnel to initiate and continue online educational projects.