

BiosciEdNet (BEN) Advisory Board Meeting
May 15, 2003
Meeting Notes

Introduction and Overview:

The BEN Advisory Board meeting was kicked off by a series of introductory presentations by Yolanda George of AAAS, Amy Chang of ASM, Marsha Matyas and Melinda Lowy of APS, Jason Taylor of ESA, Kelly Gull of ASBMB, and Nancy Gough of *Science's* STKE. The presentations provided the advisors with background information and an overview of the BEN portal site and partner digital library collections.

The introductory briefings were followed by a dialogue about the NSF Directorate for Biological Sciences (BIO) Developing Strategic Education Plan. NSF was represented by Penelope Firth, Acting Deputy Division Director, Division of Environmental Biology and Judith Skog, Acting Deputy Division Director, Division of Biological Infrastructure.

The primary purpose of the advisory board meeting was to obtain input on issues of strategic importance to the BEN Collaborative. The advisors participated in breakout groups to discuss and develop recommendations in three key areas: Developing Faculty Users & Contributors; Sustainability; and Research and Evaluation. At the end of the breakout sessions, the groups provided reports with their recommendations.

Breakout Group Reports:

Group 1 -- Strategies for Developing Faculty Users & Contributors

- How can we give credit and recognition to faculty that contribute to digital library collections, particularly in the biological sciences?
 1. From BEN
 - Mini grants to develop materials
 - Authors retain copyrights
 - Examples and instructions (e.g., assessments, table of contents)
 - Prizes for excellence
 2. Professional Societies
 - Professional development for grad students/post docs/ faculty to mentor submissions at annual meetings
 - Prizes for excellence
- How can we change the reward structure for faculty who are involved in on-line publishing and the scholarship of teaching and learning?
 1. On-line publishing
 - BEN can track # hits and downloads
 - Professional societies draw attention to excellent on-line resources (e.g. Science's "Web Watch")

2. Scholarship of teaching and learning
 - BEN distinguish types of contributions (e.g., service postings such as images vs. educational research)
 - Professional societies same as above PLUS publish scholarship of education in flagship journals (e.g. where is education research in “Science”)
- How can we (BEN) give credit and recognition to faculty contributors?
 1. Embedded citation system (e.g., STKE, BAMBED)
 2. Developing an “impact factor” (e.g. # hits, # downloads, accept rate, science citation index)
- How can NSF give credit and recognition to faculty contributors?
 1. Prioritize what elements of broader impact are—which are most valued (and include submissions to BEN, publications)
- How can Dept. Heads/Deans give credit and recognition to faculty contributors?
 1. Let administrative officers know the value of such submissions—could come from professional societies as white papers, presentations at higher education conferences, etc...
- Other Recommendations
 1. NSF hold PI’s accountable for “broader impact” of education activities and publications
 2. Mini grants to prime pump for submissions

Group 2 -- Sustainability Concerns

- How do we promote the value of digital libraries for teaching and learning to college and university faculty in the biological sciences? Advocate for the field.
- How do we build a collective identity for the BEN Collaborative, particularly in terms of being a catalytic agent for cultural changes in teaching in the biological sciences? Collective Voice.
- What are strategies for sustaining the BEN portal, as well as digital libraries of Partners? Continue to evaluate and evolve; and implement branding and marketing activities.
 1. Become the Pub Med for Educational Resources for Biology
 2. Peer Review
 3. Recognition and Reward
 4. Advocacy at National Meetings
 5. Private funding
 6. Public funding
 7. User fees
 8. Advertising

Group 3 -- Research and Evaluation

- What are the research questions that we should be asking about teaching and learning in the biological sciences at the college and university level?
- What are ways of evaluating the educational impact of digital libraries on teaching and learning in the biological science?

Additional questions were posed during the discussion.

- What are the indicators of change in teaching and learning in the biological sciences?
- Who is using BEN Resources?
- What BEN Resources are they using?
- How are they using them?
- What impacts do they see?
- Planned use?

Establish guidelines for designing experiments on use of online resources and their impact and value to teaching and learning.

1. What would you like to see? Evidence of change
 - more active learning in large lecture classes
 - more different classroom activities
 - more discovery in classes (student-centered learning)
 - student access to BEN site (TAS, etc.)
 - what are teachers accessing/using
 - more interdisciplinary teaching
 - more progressive teaching (up to date instead of same old) cutting edge new resources and current resources
 - reaching new students (interest in science)
 - utilizing more web resources/selectively by students (effective use of web) access interactive learning tools
 - use of computer simulations and or data collection
 - faculty acknowledge this value of cutting edge teaching using online resources
 - use of more complex and interactive online resources for teaching
 - enrollment in faculty members courses (follow-up questions for users)
 - achievement in courses
 - retention of students in course
 - number of majors
 - attendance of students
 - assessment tools used

- student interest in research
 - enhancement of research at university
 - what kinds of courses use materials compared to faculty expertise
 - student evaluation of courses
 - faculty identified as teaching
 - time devoted to preparation for teaching—effective use of time
 - update techniques of teaching—how often
 - increased awareness of site and 1st place you go
 - broader range of users
 - class size and course type
2. What categories should be addressed?
- Who is using Ben?
 - What are they using (getting)?
 - How are they using them?
 - With whom are they using the resources?
 - What impacts do they see?
 - Planned use?
3. Perform case study of selected users to find out why and what happened?
- Comments
 - Give Examples
 - Per semester—these are things you downloaded how useful was it?
 - Automatically respond to survey or send out e-mail

Wrap-up:

The meeting ended with a dialogue with Society Executive Directors & Officers addressing the question: What can societies do to transform teaching in the biological sciences? The lead discussants were Martin Frank of APS, Kelly Gull of ASBMB, Katherine McCarter of ESA, and Shirley Malcom of AAAS.

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