

LTER Education Committee – Strategic Implementation Plan Objectives, Actions and Milestones

Objective	Action Required	By Whom	Milestones	Status
1A. Hire a network –level Education coordinator	A. Plan, propose and fund position	EB/LNO	Job description written up by the Education Exec Committee 09/16/11	Underway
1B. Document, support and coordinate activities led by education coordinators at individual sites in relation to cross-site, regional education and outreach programs	A. Survey and present report on higher education and public outreach activities	Higher Education Working Group	See 3B	Underway
	B. Survey/report K – 12 activities	Steven McGee	By November 2011 report will be posted to the LTER intranet.	Underway
	C. Begin periodic teleconference or webinars	Education Executive Committee	Teleconferences have been held: July 2010, September 2010, April 2011	Continuing
	D. Annual education coordination meetings to provide training to site coordinators, share resources, and coordinate activities.	Education Executive Committee	Ed-Exec committee annual meeting held Sept 2011. Propose budget for annual meeting 9/2012 and for cross-site visits.	Underway Needs planning
1C. Conduct regular network-wide program evaluation and targeted self-studies, including developing metrics for assessing the effectiveness of current programs	A. Develop metrics for assessing effectiveness of current higher education and public outreach programs, including career outcomes for participants (IGERT, REU, RETs, GK-12, URM).	Higher Ed Working Group	Review and adapt existing higher ed. pre/post and follow up survey instruments (e.g., Harvard REU). In addition study use of social media as a means to track long-term outcomes (Harvard's REU Facebook page)	Underway
	B. Develop metrics for assessing effectiveness of current schoolyard programs (e.g., professional development, student research, educational resources).	Student Research Infrastructure, Professional Development, Resource Repository Working Groups	Review and adapt existing pre/post and follow up surveys,	Underway
1D. Evaluate the need for and feasibility of enhancing cyber-infrastructure support for Schoolyard LTER, in conjunction with the Information Management committee.	A. Assess needs and feasibility with particular emphasis on collaboration and support for student research.	Student Research Infrastructure Working Group	Review the common needs of schoolyard sites that support student research. Use the results of the review to propose design recommendations and seek funding.	Underway

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2A. Develop a network-wide educational development program organized around the ISSE framework and learning progressions in environmental literacy.	A. Form ad-hoc Working Groups in response to specific grant opportunities (e.g. NSF EHR, DoEd, NASA, NOAA, EPA)	Ed-Exec Committee	Proactively monitor relevant opportunities as well as collect outside requests and post requests for participation to the Education Committee. Use the results of the request for participation to form ad-hoc working groups.	Underway
2B. Develop environmental literacy materials to meet the needs of diverse communities, particularly traditionally underrepresented groups and settings- political, socioeconomic, ethnic and cultural , age, and gender				
2C. Assess models for effectively implementing environmental literacy programs in the network				
2D. Create a coordinated repository of data, curriculum materials and web sites for facilitating sharing of professional teaching and learning publications across sites	A. Assess needs and feasibility of coordinated repository	Resource Repository Working Group	Identify and prioritize the types of resources available across the LTER sites.	Underway
			Determine general approach for aggregating resources (e.g., central repository or federated search).	Underway
			Implement repository in priority order	Needs planning
			Develop searchable interface for educators seeking resources.	Seek funding

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3A. Increase the number of sites offering professional development and the variety of professional development opportunities for teachers and administrators to give them the knowledge, skills, and materials they need to take advantage of LTER resources, working directly with LTER scientists	A. Submit more site and cross-site proposals to work with teachers.	Professional Development Working Group	Proactively monitor relevant grant opportunities and post requests for participation to the Education Committee. Develop grant proposals.	Underway
	B. Create a platform for collecting and sharing professional development materials for other sites to adapt.	Professional Development Working Group	Assess professional development programs being offered across network	Underway
			Summarize professional development programs and present at ASM	At ASM 2012
3B. Increase the training opportunities for undergraduate and graduate students to engage in interdisciplinary science (REU's IGERTs URM's)	A. Identify sites that host programs (e.g. REU, GK-12, IGERT, etc.)	Higher Education Working Group	Craft survey and compile results for ASM.	Underway
	B. Identify involvement (e.g. annual REU supplement) and feasibility/impediments to increased activity (e.g. resources/staffing needed, program	Higher Education Working Group	Craft survey and compile results for ASM.	Underway
	A. Promote interdisciplinary training by sharing successful model of REU, IGERT, GK-12 and other programs	Higher Education Working Group		Needs Planning
	C. Fund Grad students to attend annual meetings at related sites. Write up connections to their research	Higher Education Working Group	\$12,000 request to support roughly 12 grad students. (Grad student committee review proposals)	Needs Planning
	D. Expand research opportunities for students from traditionally underrepresented groups.	Higher Education Working Group		Needs Planning

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3C. Develop opportunities for grad students to engage in near-peer mentoring (1-2 years older than protégé), in education, and in outreach. Promote collaboration in undergraduate research and integrate curricula across biophysical and social science disciplines (e.g., arts and humanities, policy and sustainability)	A. Assemble group and seek funding support to develop undergraduate teaching modules and mentoring opportunities	Higher Education Working Group		Planning started
	B. Encourage submission of new lesson plans to TIEE using LTER datasets.	Higher Education Working Group		Presentation ASM
	C. Include in the higher ed survey a question about providing opportunities for mentoring.	Higher Education Working Group		Underway
3D. Develop Citizen Science programming and initiatives through collaborative relationships with existing citizen science programs, supporting the development of novel protocols, engaging citizen groups and organizing opportunities for sharing best practices, data exchange and collaboration	A. Assess current sites with programs and identify best citizen science programs suitable for LTER network adoption.	Citizen Science Working Group	Discuss partnership arrangements with GLOBE, NPN, NEON Criteria for partnership: (1) they can create designated area for LTER, AND/OR (2) they have capability to incorporate LTER data.	
	B. Explore partnership with NEON to implement citizen science programs	Citizen Science Working Group	Plan to contact NEON within the next three months.	
	C. Assess which citizen science programs are being used by sites	Citizen Science Working Group	Include on survey.	

Working Groups

- a. **Resource repository/Digital Library** (Beth Simmons, Jeff Corney, Mary Spivey (chair))
 - Instructional materials, Multimedia, Protocols, Data sets, Act as a liaison to web design
- b. **Professional Development** (Kari O’Connell, Alan Berkowitz)
 - RET program and cross site exchange
 - Building educational professional. development
- c. **Citizen Science** Programs -
- d. **Graduate programs** - Arthur Schwarzschild
- e. **Undergraduate programs** - Clarisse Hart