

PROMOTING BEST PRACTICES IN ENVIRONMENTAL EDUCATION

Summary of STAC workshop
presentations and discussion

DRAFT



SCIENTIFIC AND TECHNICAL ADVISORY COMMITTEE (STAC) WORKSHOP (AUG, '12)

► Purpose:

- Identify practices that research can connect with student stewardship outcomes
- Seek guidance from research community to inform environmental literacy assessment and tracking efforts.

► Attendees:

- NAAEE, University of Michigan, Virginia Tech, Southern Illinois University, University of Wisconsin-Platteville, PEER Associates, Alfred College, NOAA, EPA, US Dept of Education, State Departments of Education from mid-atlantic region, NAAEE Affiliate Groups, EE providers, members of Mid-Atlantic Env. Literacy Workgroup, others.



EXCELLENCE IN ENVIRONMENTAL EDUCATION: GUIDELINES FOR LEARNING (K-12)



GUIDELINES FOR THE PREPARATION AND PROFESSIONAL DEVELOPMENT OF ENVIRONMENTAL EDUCATORS

STUDENT EXPERIENCES

Existing MWEE components are essential

- ▶ Outdoor experiences critical, especially early
- ▶ Inquiry/investigative approach focused on local/relevant env. Issues
- ▶ Student directed action Projects with reflection

New recommended practices

- ▶ Expand scope of environmental issues (beyond watershed)
- ▶ Student directed learning/investigations should be emphasized
- ▶ Refine student action component with focus on civic engagement
- ▶ Role of the teacher/educator as role model is important

EDUCATORS

Essential Practices

- ▶ Pedagogy is critical to achieving student stewardship outcomes
- ▶ Teacher professional development and support must model and target those pedagogies to be effective

Educator (teachers and EE Providers) Best Practices

Environmental Education Professional Development Best Practices


TEACHER/EDUCATOR BEST PRACTICES

- ▶ Have content and pedagogical strategies to teach EE by grade level
 - ▶ Issues, investigation, balanced approach, field based learning, student directed learning, service learning, etc.
- ▶ Teachers as role models for their students
- ▶ Integrated, interdisciplinary approach
 - ▶ STEM, NGSS, Common Core, Social Studies, etc.


PROFESSIONAL DEVELOPMENT BEST PRACTICES

- ▶ 30 hours of instructional time is essential
- ▶ Model instruction during PD whenever possible
- ▶ Focus on increasing environmental literacy of teachers (prepare them to be role models)
- ▶ Provide sustained support


BEST PRACTICES FOR “GREEN” SCHOOLS

- ▶ School buildings, grounds, and operations work towards net-zero environmental impacts.
 - ▶ The school environment has a positive effect on the health of students, staff, and the surrounding community
 - ▶ Students, administrators, maintenance all engaged – “green” team
 - ▶ Access to data, integrated with instruction
 - ▶ Community based and implemented
 - ▶ Outdoor classrooms integrated and used
 - ▶ Get certified!!
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BEST PRACTICES FOR “GREEN” SCHOOLS CERTIFICATION PROGRAMS

- ▶ Performance based criteria
 - ▶ Include verification and accountability measures
 - ▶ Comprehensive approach to sustainability
 - ▶ Multiple levels of recognition that are transparent
 - ▶ Involve stakeholders in all aspects of program
 - ▶ Publicize results
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POTENTIAL APPLICATIONS OF BEST PRACTICES

- ▶ NOAA, CBT, other funding opportunity guidance and criteria
 - ▶ On-line reporting tools for EE providers, teachers and others to showcase model programs and projects and establish on-going data collection (by school)
 - ▶ Update of MWEE Goal, Indicator and regional tracking system
 - ▶ Others TBD by Workgroup
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RECOMMENDATIONS FOR INDICATORS/METRICS FOR E-LIT

5 conditions of collective impact – Stanford Social Innovation

Condition		MAELs application
Common Agenda	Shared vision, barriers, joint action	The STRATEGY
Shared Measurement	Consistent data, regular collection, feedback loop	Indicator and Metrics
Reinforcing Activities	Coordinated roles, actions, managed chaos	State collaboration, E-Lit Plans
Communication	Build trust, shared purpose, alignment	Mid-Atlantic Workgroup
Backbone of support	Data crunchers, conveners, facilitators	NOAA, CBP, CBT, STAC, etc

RECOMMENDATIONS FOR INDICATORS/METRICS FOR E-LIT

- ▶ # states in the Chesapeake Bay region with MWEEs in their educational policy
- ▶ # of local school divisions implementing Environmental Literacy Plans.
- ▶ # of school divisions and # of schools with strong support for MWEEs.
- ▶ # of students receiving a MWEE in the past year (estimated range with lower and upper bound)
- ▶ % of students that show changes in knowledge or stewardship as part of MWEE
- ▶ GOOD LUCK AND KEEP AT IT!!!!