



Boston Latin School Youth
Climate Action Network
www.blsyouthcan.org

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Final Report - 2010 Boston Summer Institute On Educating for Sustainability

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Period covered: July '10 – April '11

Background Summary

In July 2010, 38 teachers and administrators from the Boston region participated in the inaugural CELF Boston Summer Institute for Sustainability Education, held in partnership with the BLS Youth CAN and Simmons College. During the 5-day Institute, teachers learned how to lead students through critical investigations of contemporary issues using sustainability-based content and methods. Topics included climate change, energy, transportation, land use, environmental impacts of economic choices, and other issues reflected in the MA State Learning Standards for Science and Social Studies. Consistent with proven educational practice, Education for Sustainability (EfS) integrates these topics from social, economic and ecological perspectives; encourages student inquiry; establishes local-global connections; and promotes positive, community-based action. Using a sustainability lens, each participant completed two lesson plans or a complete unit for implementation during the 2010-2011 school year.

Activities during the period

During the 5-day Institute, attendees learned how to enhance their classroom delivery and how to design "makeovers" of existing curricula to increase student engagement and depth of understanding. All participants completed the Institute with increased foundational knowledge of sustainability topics and two lesson plans to implement in their classrooms during the '10-'11 school year.

Attendees and presenters examined existing operational Education for Sustainability programs that incorporate interdisciplinary designs, inquiry-driven designs, and content organized and framed by "big ideas" and questions essential to living in the 21st Century. They then worked together to create lesson plans that incorporated the targeted content and methods.

An evaluation of the Institute was submitted by each participant prior to leaving on the last day of the workshop. 100% of the participants responded that they "strongly agreed" with the statements, "The instructors were effective as teachers" and "The material covered will be used to enrich existing curriculum in this academic year."

Through CELF's partnership with Simmons College, participants were able to take the course for graduate credits. Twenty teachers took the course for graduate credits and several received professional development credits.

Follow-up Implementation Survey and Focus Group

CELF engaged an independent professional research and evaluation firm, **PEER Research Associates**, to evaluate the teachers' experience with curriculum integration during the school year and to design a follow-up focus group for additional feedback. 80% of the participants reported that they have successfully implemented their curriculum and/or projects in their respective classrooms.

From the survey results, PEER concluded that the teachers are more comfortable with the main concepts of sustainability now than they were in the pre-institute survey. They also reported using the concepts more in their curricula.

CELF conducted the follow-up Focus Group on April 12, 2011. Held at the Boston Latin School, the focus group yielded robust, helpful feedback for planning the 2011 Summer Institute. More broadly, the feedback will be utilized to begin framing the long-term state plan for Sustainability Standards.

Products completed during the period:

1. Sustainability Lesson Plans, Curriculum Units and/or Classroom project plans
2. Graded graduate projects with feedback to each participant on his/her lesson plans
3. Workshop evaluation forms
4. Classroom implementation
5. Implementation surveys
6. Documentation of teacher reflections and unit makeovers
7. Multiple presentations on the Institute topics and pedagogy at conferences and individual schools, including:
 - University Club of Boston – September 22, 2010 – BLS Youth CAN Advisory Board BLS Youth CAN Student Presentation on Summer Institute
 - National Teach-In on Global Climate Change Solutions, Boston Latin School, October 8 & 12, 2010 – presentations on climate & sustainability
 - Climate Change Connections Professional Development For Educators Sponsored by National Wildlife Federation/NASA - November 1-3, 2010 Goddard Space Center, Greenbelt Maryland (Cate Arnold presented to educators about the Summer Institute and Educating for Sustainability)
 - 2011 Coastal America Student Summit on Climate and Oceans – BLS Youth CAN Student Delegation Presentation to Student Attendees about Educating for Sustainability
 - Primary Source, Watertown, April 6, 2011 – Educating for Global Understanding Educators Conference – Panel on Sustainability (Cate Arnold presentation on educator panel about Summer Institute and Educating for Sustainability)
 - Annual Green Schools Summit, Woburn, MA Friday April 29, 2011 - BLS Youth CAN Presentation about Education For Sustainability
 - National Wildlife Federation Eco-Schools USA Webinar – Wednesday May 4, 2011 – Cate Arnold & BLS Youth CAN President Rebecca Park – Presentation About Educating for Sustainability and Funding Sustainability Initiatives In Schools

Outcomes of CELF 2010 Boston Summer Institute: Education for Sustainability:

Use of students' work in the community and beyond

The outcomes of students' learning -- reports, presentations, and other products -- have been, and will continue to be shared with the community through CELF and BLS Youth CAN newsletters, presentations, websites, and other public venues coordinated through CELF and BLS Youth CAN.

Students shared their learning in online posts:

- Alliance for Climate Education website ://www.acespace.org/dot
- Do Something.org website (for the Green your school contest)

Students made videos that shared their learning:

- Summer Institute: <http://www.youtube.com/user/BLSYouthCAN#p/u/12/2VfFv60z66s>

- Energy: <http://www.youtube.com/user/BLSYouthCAN#p/u/7/GAIYVoWPkDY>
- Campus Chill Out Entry: <http://www.youtube.com/user/BLSYouthCAN#p/u/10/dJI-2D5mz6U>
- Why Recycle: <http://www.youtube.com/user/BLSYouthCAN#p/u/11/WxZg4t83Lx8>

Students Shared Learning Through Partnerships and Events:

- BLS Youth CAN Student Mentoring Program with Philbrick Elementary 5th Graders
- BLS Youth CAN Fall Food Fair – November 13, 2010 – BLS Youth CAN Students Educated for Sustainability – 250 – 300 attendees – video: <http://becrollins.com/2010/11/first-lady-invite/>
- Annual BLS Youth CAN Climate Summit at MIT, Saturday, May 21, 2011 – Summit E-vite: <http://www.youtube.com/watch?v=xWZ34vKnnco>

Measurements for project success and evaluation criteria

Teacher engagement: Participants reported their own increased interest in both the topic of sustainability and in its use as a real-world, relevant context for teaching.

Student' learning and reach: During the grant period, the participants' sustainability curriculum and projects have reached approximately 1,750 6-12 students.

Demonstrations of student learning have been reflected in all sorts of ways, ranging from articulations that evidence student understandings of the overarching nature of sustainability issues - eg: BLS Junior, Rebecca Park: http://www.youtube.com/watch?v=qjpbimQ8bNc&feature=youtu.be_gdata_player to numerous more conventional examples of student learning evidenced in student work, such as journals kept by 8th Grade US History Students.

At the 2011 post curriculum implementation follow up session, teacher participants from the 2010 Boston Summer Institute acknowledged that their students demonstrated evidence of understanding and increased aptitude with sustainability content and processing. To the extent teachers are able to share it, CELF will continue to collect student work as an on-going assessment of the project.

Project Exposure: the number of community members and individuals across the country introduced to the project are estimated to total over 5,000. This was achieved through media (Boston Globe; Summer Institute Video); presentations for regional school administrators and staff, PTAs, invitations to individual school meetings, and conferences.

Other measures of success: as a result of the positive feedback from Institute participants, BLS Youth CAN students have again contracted the Children's Environmental Literacy Foundation to conduct a 2011 Boston Summer Institute, that will reach a new group of 35-40 middle and high school teachers in Massachusetts.

BLS Youth CAN's Student Leadership Role

BLS Youth CAN students collaborated in bringing the 2010 summer institute to Boston in support of their Massachusetts Education for Sustainability Campaign (EfS). The students recruited 14 Boston Latin School faculty members from across grade levels and disciplines to attend a week-long training culminating in the development of sustainability lessons that have been being implemented at Boston Latin School this year.

Youth CAN's EfS Campaign aims to develop a body of sustainability lessons that can be widely shared. Dr. Johnson attended one day of last summer's event in support of the BLS Youth CAN's education campaign. BLS is now leading the way on Education for Sustainability in Massachusetts with this initiative. The project places students at the forefront of the green schools, and education for sustainability movement with their curriculum campaign, their green roof proposal, their comprehensive plan for energy modifications & greening of the schools daily operations, and their youth leadership model.

The Education for Sustainability Campaign in particular seeks to promote genuine environmental literacy, and to get educators in all classes to teach in ways that will connect what students are already learning to the big ideas of sustainability (like interconnectedness, interdependence, systems thinking, cycles, equity, etc.) For example, using a lens of sustainability would result in an economics teacher instructing students about economic systems while making explicit the "triple bottom line" inherent in sustainable

economic considerations –namely that economic decisions impact far more than just economic systems; they affect environmental systems & social systems too. When an economics teacher educates for sustainability they help teach students engage in this sort of “big picture, systems thinking” that future leaders who want to promote sustainability will *need* to be able to do.

For students to consider what economic approaches will contribute to sustainability, they need to understand the interrelatedness of systems. The same is true across disciplines and grade levels. There are all sorts of ways for educators to link core curriculum to these big ideas and to begin to educate students for sustainability.

At the 2010 EfS Summer Institute, educators began making such links within their curriculum planning lessons that that have begun to help students begin to think more broadly about the fundamental interdependence & interconnectedness of all living things—in short, preparing them for the complex systems thinking needed for sustainability.

Math, History, English, Spanish, & Science teachers across grades 7-12 developed sustainability curriculum now being implemented at BLS. In 2011 more will be added. Students will promote the curriculum at other schools through the network of Youth CAN member groups .

BLS Youth CAN is encouraging all BLS teachers to begin to think about how to participate in educating for sustainability, and help the Boston Latin School move further in the direction of preparing our students for the future they are facing.



**Group Photo With Dr. Carol Johnson
Superintendent of Boston Public Schools**



Working on Commons Activity



Experimenting



Collage Activity



Student Presenters on Simmons Green Roof



Group Work