



Sustainability: Events Summative Evaluation Report

Community Environmental Services in partnership with OMSI

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Introduction to the *Sustainability Project*

As part of the National Science Foundation funded *Sustainability: Promoting Sustainable Decision Making in Informal Education* project, the Oregon Museum of Science and Industry (OMSI) and its partners developed a bilingual (Spanish/English) exhibition, event series, outreach campaign, and website for the public. The goal of these deliverables was to promote sustainable decision making by building skills that allow participants to weigh the tradeoffs of their choices and choose more sustainable practices. The project duration was September 2009 – April 2015.

The project team used a positive, story-based approach to engage the target public audience of English- and Spanish-speaking families in the Portland metropolitan area. The deliverables focused on people and places in the area and highlighted simple choices available to everyone.

The project also features professional audience deliverables that build upon the groundbreaking work already done at OMSI in the area of sustainable exhibit development, design, and fabrication.

Project Goals

1. Promote sustainable decision making.
2. Promote sustainable practices for developing, designing, and fabricating exhibits.

Target Audiences

Public Audience

- Families, with a focus on families with middle and high school aged youth
- Residents of the Portland metro area (Clackamas, Washington, and Multnomah counties)
- Underserved audience: parents who prefer to speak Spanish and their families

Professional Audience

- Exhibit developers, designers, and fabricators in non-profit and for-profit sectors
- Secondary audiences include museum administrators and others working in Informal Science Education (ISE) organizations

Project Deliverables

- A 1,500 square foot bilingual (Spanish/English) exhibition, *Clever Together/Juntos somos ingeniosos*, designed to engage the public in developing an understanding of the skills needed for sustainable decision making in their everyday lives
- Bilingual (Spanish/English) outreach campaign that uses access points outside of the museum to encourage people to engage with sustainability-related stories and activities via phone or computer (*Local Voices, Clever Choices/Nuestras voces, nuestras decisiones*)
- Eight bilingual (Spanish/English) museum events about sustainable living
- ExhibitSEED workshops for museum professionals on sustainable exhibit development
- A set of documented practices and guidelines, tools, and resources for sustainable exhibit development, design, and fabrication that may become an industry standard (ExhibitSEED.org)

Project Partners

- Coalition for a Livable Future
- Metro Regional Government
- Portland Bureau of Planning and Sustainability
- Portland Community College
- Verde

Overview of Sustainability Events

As part of the *Sustainability* project deliverables, the OMSI's *Sustainability* project team designed and hosted seven events between September 2011 and November 2013 (with one more planned for July 2014). All *Sustainability* deliverables, including the events, were designed with the following goals in mind: participants will 1) **capture the big idea**, "We can cultivate a more sustainable¹ community by building skills and making decisions that maximize positive impacts," 2) **practice skills** necessary for making more sustainable choices that consider environmental, social, and economic impacts, and 3) **demonstrate emergent outcomes** not anticipated at this time. The project included these events to promote community outreach and involvement, as well as enhance the visibility and accessibility of the *Clever Together/Juntos somos ingeniosos* exhibition at OMSI and *Local Voices, Clever Choices/Nuestras voces, nuestras decisiones* outreach campaign.

Participants

The event organizers sought the largest and most diverse audience possible at the museum by scheduling events on reduced admission days—when entry was \$2 per person—and/or hosting the event in areas that did not require participants to pay admission (e.g., the parking lot, lobby, and auditorium).

The target underserved public audience for the *Sustainability* project included families with at least one adult who prefers to receive information in Spanish. OMSI targeted this audience because Hispanics are the largest minority community in the Portland metropolitan area (about 11% of total metropolitan population) but had previously represented only 4% of OMSI visitors. In early 2008, OMSI made a commitment to increase outreach to Hispanic audiences and conducted front-end research with Hispanic adults to ask what would encourage them to participate in OMSI programs. Participants primarily wanted activities that would involve their families. In particular, they asked for bilingual exhibits and programs, events that make repeat visits more interesting, a bilingual website, and more advertising, especially on public transit and radio. In response to this information, OMSI took the following steps to invite and engage Hispanic, Spanish-speaking families to the *Sustainability* events:

- Bilingual/multicultural staff helped create the events to ensure that activities and outreach would be engaging and relevant to Hispanic audiences.
- Event coordinators invited partner organizations that serve Hispanic communities to participate in the event and invite their constituents to participate.
- Coordinators used bilingual, English-Spanish recruitment fliers and other Spanish language communications (such as radio spots and partner contacts) to invite Spanish-speaking families to the events.
- Bilingual staff and volunteers staffed the events and were present at most activity areas.

¹ "Sustainability is commonly defined as the concept of providing society with current needs in a way that doesn't harm the ability of future generations to meet their needs. Definitions often include the three components environment, economy, and society (sometimes referred to as the three "Ps": planet, prosperity, and people)." – Trautmann, Charles H. (2007). A Change in the Weather: European Museum Coverage of Global Climate Change. Sciencecenter Report. p.3. Retrieved on October 3, 2014 from http://informalscience.org/images/research/A_Change_in_the_Weather.pdf.

- Event activities were presented in both languages.
- Staff focused on activities that engaged the whole family and related to people's everyday lives.

Event Details

OMSI hosted the *Sustainability* events during years 3, 4, and 5 of the grant. One event celebrated the opening of the *Clever Together* exhibition, while the rest focused on food, transportation, energy, and "stuff" (i.e., thoughtful consumption and waste reduction). These topics were chosen based on research and partner/advisor input suggesting that these topics encompassed a family's most relevant and meaningful sustainability-related decisions.

OMSI staff worked closely with their five project partners as well as numerous other community organizations to support and participate in the events. OMSI organized the marketing, logistics, and most of the hands-on, educational activities. Partner organizations provided content expertise, take-home materials, and additional activities. All events included hands-on activities and informational booths focused on building skills for sustainable decision making.

Five different festival-style events were held during the project (see Appendix I for detailed event descriptions including themes, educational goals, and formats):

Power of the Pedal, September 24, 2011: Power of the Pedal engaged visitors in hands-on activities focused on the skills needed to safely use bicycles as a means of transportation. This was considered a formative event allowing the team to test the event format and conduct evaluation with participants. OMSI Evaluation and Visitor Studies (EVS) staff collaborated with PSU's Community Environmental Services (CES) to plan, carry out, and report on evaluation activities. Findings from this first phase were used to inform remaining events. See Appendix II to view promotional flyer.

Clever Together/Juntos somos ingeniosos Exhibition Grand Opening, October 7, 2012: The Grand Opening was held on the first \$2 Sunday after the exhibition opened to the public. The event was held in the Earth Science Hall near the *Clever Together* exhibit components. Project partners and OMSI staff set up booths and activities about all aspects of the exhibit and encouraged people to learn more about the *Local Voices, Clever Choices/Nuestras voces, nuestras decisiones* outreach campaign.

Celebrate Sustainably, November 4, 2012, and November 3, 2013: Celebrate Sustainably explored ways in which people could make more sustainable choices during the holiday season related to gift giving, supporting community organizations, decorating, food, and waste disposal. The event featured live entertainment, demonstrations, and several craft activities that resulted in gifts or decorations to take home.

Dirt to Dinner, August 4–5, 2012, and March 30, 2013: *Dirt to Dinner* looked at the life cycle of food, from farm to table and beyond. While there was some food available to eat, this event focused on activities and organizations that encourage and reinforce sustainable choices related to growing, buying, preparing, and disposing of food.

Drive Revolution, July 13, 2013, and July 12, 2014: *Drive Revolution* looked at the different ways people can make more sustainable transportation choices. Participants learned about the future of clean, sustainable transportation and how reducing their carbon footprint contributes to a more vibrant, healthy, and sustainable community. The event included opportunities to see and, in some cases, test drive/ride cargo bikes, electric vehicles, and other alternative transportation options.

Summative Evaluation Purpose

The purpose of the summative evaluation of the *Sustainability* events was to assess how successfully the sustainability events 1) achieved the project goal of engaging families with activities that allow them to learn and practice skills that support sustainable decision making and 2) attracted new visitors to the museum who might not otherwise engage with Informal Science Education (ISE).

Evaluation Methods

The summative evaluation was based on reflections gathered from the project team during a group interview session (e.g., debrief) in order to identify lessons learned and gauge the success of the events for public audiences, organizers, and community partners.

On November 20, 2013, the CES evaluator conducted the group interview to capture the team's experience and to explore the following questions:

- Did staff perceive that the events achieved the desired goals?
- What are the lessons learned and how can they inform future events?

The primary tool for this summative evaluation activity was a debrief question guide (see Appendix III) designed to address the above topics. The debrief question guide was designed through an iterative process between the CES evaluator and the OMSI project team. The CES evaluator led the debrief session, administered the guide questions, and captured all responses from the project team participants through note-taking. One participant who was unable to attend submitted responses to the debrief questions in written form via email to the CES evaluator. Notes recorded during the reflection session or delivered electronically were later organized and analyzed by theme to inform findings and recommendations.

Participants

A total of five core project team members participated in the debrief session in addition to the CES evaluator. These participants were from the following OMSI departments: Exhibit Research and Development, Program Research and Development, and Marketing.

Findings

The “lessons learned” debrief provided a forum for OMSI staff to reflect on the success of the events within the context of the goals set at the start of the *Sustainability* project and the evolution of these goals throughout the project. The following section includes questions and responses from the debrief session (see Appendix III for the complete debrief guide).

Goals for Events

What were the primary goals of the events as a whole? What messages did you hope participants would take away from the events?

Team members responded that one of the primary goals was to use the museum (OMSI) as a place to demonstrate to the public that they can learn skills necessary to make more sustainable choices. Some respondents also mentioned that the events were an opportunity to learn about perceived barriers to more sustainable decision-making and to offer solutions or new alternatives to overcome these barriers.

Some team members also mentioned that the activities at the events were designed so that participants could relate to things they could do at home and in their everyday lives, such as riding bikes, wearing helmets, using public transportation, etc. Some respondents mentioned that the events also provided opportunities to go deeper into the topic of sustainability and explicitly make the connection among the three pillars² (social, economic, and environment).

There was general agreement among the team that the events also offered a direct connection between the public and the museum as well as to the other components of the *Sustainability* project, like the exhibit and outreach campaign.

² The United Nations General Assembly defines the three pillars as, “efforts [to] promote the integration of the three components of sustainable development – economic development, social development and environmental protection – as interdependent and mutually reinforcing pillars.” – 2005 World Summit Outcome, Resolution A/60/1. (15 September 2005). p.11-12. Retrieved on October 3, 2014 from http://data.unaids.org/Topics/UniversalAccess/worldsummitoutcome_resolution_24oct2005_en.pdf

Support for Project Goals

How well did events support participants in capturing the big idea of the project: We can cultivate a more sustainable community by building skills and making decisions that maximize positive impacts?

Though not directly measured, the “big idea” of the project was demonstrated to participants via activities and information that related to things in visitors’ everyday lives. Some team respondents talked about how the event and its activities explicitly focused on project-related topics like food, transportation, and the consumption of consumer goods. Team members explained that the big idea was further communicated by having local community partners participate in the planning and execution of the events and letting visitors know about these partnerships.

How well did events support the overall project goal of helping participants understand or develop skills that support sustainable decision-making?

Team members witnessed firsthand the engagement of event visitors. For the most part, team members said that visitors were visibly engaged with the activities and developing skills as they went through the event booths. Team members explained that the idea was also to make the event approachable with familiar things like composting and repurposing. One of the team members talked about how offering facilitated activities allowed participants to practice making sustainable choices and learn new skills.

As a whole, the team agreed that the events helped communicate and reinforce the project’s overall message about sustainable decision making and supported the project’s overall goals.

Audiences for Events

How well did events reach targeted audiences? What contributed to success/lack of success in reaching those audiences?

Team members focused heavily on recruiting bilingual volunteers to help plan and facilitate event activities with great success. Though team members said that more formal evaluation would have been helpful to determine the audiences reached at these events, key team members identified some strategies that made events successful, such as having clear messages for Hispanic families, and mentioned that more extensive outreach efforts could have increased participation from that community even more. Team members also mentioned that having the budget, knowledge, and skills to market these types of events would have made a positive difference, though some things like handouts, the internet, and Spanish-language media did contribute to the relative success of the events.

Evolution of Project

How and why did the project evolve over time?

Team members mentioned that resources, capabilities, and other factors were formally assessed through evaluation of the first event. The results were used to plan the remaining events and helped address important factors such as context, relevance, and outreach strategy for each event. The team also mentioned that compromises between the project team's ideas and museum-wide needs may have contributed to communication and logistical challenges.

Assessment of Success

What do you think are the greatest successes of the events? For the public, for OMSI, for partners? For the Informal Science Education (ISE) field?

Team members noted that some events were more successful than others in terms of attendance numbers and project goals. Based on experience with the first events, the team identified strategies (e.g., better aligning content with the interests of the target audience) to increase the success of subsequent events. The museum plans to continue to host the events that had the greatest appeal and highest attendance numbers—*Celebrate Sustainably* and *Drive Revolution*. The team attributed the success of those two events to the following factors: *Celebrate* engaged audience members with fun activities that helped them acquire meaningful skills while *Drive* had great partner appeal. It was a great venue for partners, such as regional governmental organizations, to share their messages, so they were willing to become involved.

One team member specifically mentioned that offering bilingual events, recruiting bilingual volunteers for those events, and undertaking outreach through Spanish-language media resulted in positive outcomes. Interviewed team members agreed that project partners also appreciated being asked to participate and share their messages through this relevant and efficient platform. The project team speculated that the public enjoyed the new ideas, takeaways, information, and playful activities. Key team members mentioned that timeliness and relevance contributed to meaningful, fun hands-on activities that allowed the whole family to participate.

Assessment of Challenges

What was less successful? What would you change? Why? What opportunities were missed?

Team members mentioned that better promotion internally and externally would have helped to market the events and attract more participants. More formal evaluation of early events might have helped the team learn even more from their experiences in order to improve subsequent events. The team also mentioned that it might be a good idea in the future to organize more similarly scalable events that are smaller and cheaper to develop but easier to promote in terms of partners, activities, and messages. As one participant explained, "*Celebrate Sustainability is scalable because the event was structured in a format that would be easy to grow, by adding more vendors and activities without having to change the layout, the location in the museum, and/or the general concept.*"

Lessons Learned for Field

What did you learn that you would like to share with the field?

The team highlighted the importance of defining and strategizing for a target audience. They recognized the benefits of smart, evidence-based strategies in the use of bilingual content and involvement of community partners. The team also said that planning activities that appeal to those outside the target audience (in this case youth age 11–18 and their families) is important. Many families have small children in addition to older youth; therefore the event must engage children of all ages to allow the target audience to stay long enough to participate. Team members mentioned that a good balance between education and entertainment is more in-line with and relevant to the way people learn in informal environments, such as museums. The team also suggested having more hands-on activities and giveaways, as well as hiring engaging and people-friendly staff and vendors to get people more excited about the event content.

Sustainable Practices for Events Team

One of the goals of the overall project was to encourage team members to use the sustainable decision-making model in their own work. How did that work out for the team developing the events? What was challenging about the event development process?

Event organizers made an effort to use minimal and repurposed resources, which aligned with the project's educational goals and reduced costs.

Uniqueness of Events

Please describe anything that you think made these events unique—unlike anything else visitors could have experienced in Portland, Oregon (or in Oregon or on a typical day at OMSI).

Team members agreed that the event was unique as it exposed typical museum audiences to other languages and cultures such as the bilingual (i.e., Spanish and English) communities at “sustainability” events.

Conclusions and Recommendations for the Field

Overall the events achieved varying degrees of success with the best outcomes in the areas of partner or community collaboration, recruitment of bilingual volunteers, and improvement of outreach strategies. Families who participated in events were successfully engaged in activities that allowed them to learn and practice skills that support sustainable decision making. Due to OMSI's commitment to sustainability education and the success of some of these events, the museum hopes to continue hosting sustainability events beyond the grant period.

During the course of the project, the team found that using more effective, affordable outreach (such as piggybacking on other events or reaching out to community-based Spanish-language media) and

choosing the most visible locations and times (inside the museum on \$2 Sundays) attracted more participants and will use these strategies to increase participation in future events.

OMSI identified ways to be both environmentally and economically efficient through the use of minimal new physical resources (e.g., reusing craft materials), paid staff, and other resources typically needed (such as marketing and advertising) needed to engage public audiences.

Notably, events were most successful at engaging participants when they included interactive activities or when outside partners offered some sort of giveaway. Events, booths, or activities were less successful when they were primarily informational and without a hands-on element or giveaway.

The recruitment of bilingual volunteers was a challenge but yielded positive outcomes both for OMSI and the audiences attending the events. By having bilingual staff at events, museums and other cultural institutions can reflect the diversity of their communities and demonstrate a commitment to connecting with new audiences and providing learning opportunities for the entire community.

Recommendations

To attract participants, serve Hispanic families, and reinforce skills for sustainable decision making, event organizers at OMSI and other institutions can learn from the following recommendations:

Plan events carefully to maximize personnel and physical resources.

- Pursue and leverage mutually beneficial community partnerships that can help reach audiences and add depth to the experience.
- To maximize participation, situate the event in a high traffic area where the target audience is already going and will be ready to participate (e.g., in or near an exhibit hall, near a gathering area).
- Recruit, train, and utilize volunteers.

Focus on linguistic (Spanish) accessibility.

- Continue to pursue and leverage mutually beneficial community partnerships that can add diversity to the offering at the event and invite target audiences to attend.
- Recruit bilingual volunteers to promote and staff events. Bilingual volunteers increase the diversity of the event staff and attendees by inviting their friends and family to participate as well. Develop a volunteer management role as needed.

Include highly engaging activities.

- To maximize engagement, make sure event components are entertaining as well as informational. Focus on hands-on, interactive activities and giveaways.
- Design complementary activities for younger children even if the target age group is older, so that families are able to spend more time at events.
- If possible, give people an opportunity to make or practice something that they *could* do at home but probably *have not* done before (e.g., using a sewing machine for mending).

- If possible, give people an opportunity to do something they probably *could not* do at home (e.g., drive an electric car or cargo bike).

Create clear, easily disseminated promotion materials.

- Develop a strong internal and external promotion and coordination strategy as a key part of event planning. Prioritize intra-organizational communication and skills development to support promotion and coordination.
- Use cost-effective outreach methods, including flier distribution at related community events and free media resources (e.g., social media of volunteers/partners/staff, community radio spots, earned media in community newspapers) instead of expensive print advertising.
- Evaluate outreach efforts to ensure clear messages and recruitment strategies for target audiences. These can be in the form of media platform (e.g., website, social, radio, TV) metrics to help with understanding of outreach efficacy and impact with specific audiences. Learn to make outreach adjustments to effectively reach the intended public in a relevant and timely manner.
- Expand outreach beyond the identified partners to seek new partners, including those who are less visible and represent under-served groups even within a minority group.

Appendix I. Full Event Descriptions: Concepts, Goals, Formats

Celebrate Sustainably

Concept: This Energy and the Environment bilingual festival-style event explored ways in which people can make more sustainable choices during the holiday season, providing opportunities for families to learn and practice skills which in turn will help them support our society, economy, and environment. This event featured activities and organizations that encourage and reinforce sustainable choices. An exciting element of the event is the inclusion of live entertainment and demonstrations. This event has been held for two consecutive years.

Main educational goal: To provide opportunities for families to learn and practice skills that help them make more economically, environmentally, and socially sustainable decisions around their holiday planning and celebrations (such as: shopping sustainably, food preparation, alternative gift wrapping, menu planning, knitting, crafting, sustainable gifts options, DIY decorations, holiday tree recycling, reusing resources, waste management, etc.).

Format: This event took place in November of 2012 and of 2013, inside OMSI's auditorium. The event's layout included different areas of the celebrating sustainably concept. Each area included partner organizations and activities prepared by OMSI.

Dirt to Dinner

Concept: This signature Energy and the Environment bilingual festival-style event looked at the life cycle of food, from farm to table and beyond. It featured the different stages of food, where it comes from and how it gets there. While the event included food available to eat, it focused on activities and organizations that encourage and reinforce sustainable choices.

Main educational goal: Provide opportunities for families to learn and practice skills that help them make more economically, environmentally and socially, sustainable decisions about their food. Skills included: shopping sustainably, food preparation, grow your own food, food waste management, food preservation, etc.

Format: The event took place in summer of 2012 and March of 2013 inside the OMSI auditorium. The event illustrated the different focus areas of the food life cycle. Each area included partner organizations and activities prepared by OMSI.

Drive Revolution

OMSI's overall concept: This signature Energy and the Environment bilingual festival-style event looked at the different ways to make mobility more sustainable. Attendees learned about the future of clean, sustainable transportation and how reducing carbon footprints can contribute to a more vibrant, healthy and sustainable community.

OMSI highlighted sustainable transportation with Drive Revolution: The Future of Transportation in July of 2013. Drive Revolution showcased the latest in sustainable transportation options in bikes, rail, and, prominently, in cars. Audiences had hands-on opportunities to learn about the newest engineering techniques and sustainable choices for the future. OMSI is dedicated to inspiring learners of all ages to gain a deeper knowledge of the science around them, in fun and informal educational settings. Drive Revolution initiates new steps in public education around alternative transportation and the innovation and engineering around them.

This event showcased alternative transportation vehicles, systems, fuels, etc. and focused on activities and local organizations that encourage and reinforce sustainable choices.

OMSI's main educational goal: Provide opportunities for families to learn and practice skills that help them make more environmentally and socially sustainable decisions about their transportation. Skills included: utilizing Portland's transit system, biking with confidence, test driving the newest electric cars, learning how to make the most of trips around town, and learning how to make overall carbon footprints smaller.

Format: The event took place in July of 2013 and of 2014) and was located outside in OMSI's North parking lot. The event presented the different focus areas and each area included partner organizations and activities prepared by OMSI. There was also an Innovation Stage with lectures focusing on technology, clean energy, and sustainability.

Appendix II. Example Flyer for Event

THE POWER OF THE PEDAL

SATURDAY, SEPT. 24
10AM-4PM
FREE AND OPEN TO THE PUBLIC

OMSI
Discover Encounters with Nature

\$ 2 OFF | Families participating in event activities receive \$2 off museum admission for each family member

OMSI presents **THE POWER OF THE PEDAL**, a bilingual bike event. Join us for bike-powered family fun featuring **food, music, safety and maintenance demos, a bike rodeo, and special activities for kids.**

Partners include the City of Portland, Metro, DHSU, Trimet, and Clever Cycles. | This material is based upon work supported by the National Science Foundation under Grant No. DRL-0917595

Appendix III. Events Debrief Guide

Events Debrief Guide

Support for Project Goals

1. How well did events support participants in capturing the big idea of the project: We can cultivate a more sustainable community by building skills and making decisions that maximize positive impacts?
2. How well did events support the overall project goal of helping participants understand or develop skills that support sustainable decision-making?

Goals for Events

3. What were the primary goals of the events as a whole? What messages did you hope participants would take away from the events?

Audiences for Events

4. How well did events reach targeted audiences? What contributed to success/lack of success in reaching those audiences?

Evolution of Project

5. How and why did the project evolve over time?

Assessment of Success

6. What do you think are the greatest successes of the events? For the public, for OMSI, for partners? For the ISE field?

Assessment of Challenges

7. What was less successful? What would you change? Why? What opportunities were missed?

Lessons Learned for Field

8. What did you learn that you would like to share with the field?

Sustainable Practices for Events Team

9. One of the goals of the overall project was to encourage team members to use the sustainable decision-making model in their own work. How did that work out for the team developing the events? What was challenging about the event development process?

Regional Component (ask if there's time)

10. Please describe anything that you think made these events unique – unlike anything else visitors could have experienced in Portland, Oregon (or in Oregon or on a typical day at OMSI).



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