Makerspace Playbook Site Survey:
OLÉ – Organizers in the Land of Enchantment

March 2015

CONTACT INFORMATION

Name: Andrea Serrano

Title: Deputy Director

Personal social media: Twitter: @ajaeserrano

ORGANIZATION

Organization Name: OLÉ – Organizers in the Land of Enchantment

How would you describe your organization type (library, museum, school, community organization, etc.)? Grassroots organization (non-profit)

Organization website: http://olenm.org/

Organization social media links:
Facebook: www.facebook.com/olenewmexico
Twitter: @olenewmexico
YouTube: OLENewMexico

Location (city, state): Albuquerque, New Mexico

Is your organization rural, urban, or suburban? While we are mostly organizing in an urban setting, we do also work in rural areas of N.M.

Is your space and/or elements of your programming mobile? Elaborate, if necessary.
Our organizers are consistently working at Early Education centers, holding parent meetings, and, most recently, setting up makerspaces in Early Ed centers.

Target audience(s):
Working families, namely parents as well as minimum wage workers and immigrant populations.

Annual budget (indicate if public or not public): $750,000 (not public)

Percentage free and reduced lunch served (if known): 100%

Access: Is your organization open to public, age restricted (elaborate below), membership-based, free, and/or admission required? Are there specific groups that you serve?
We are a membership-based organization. Members who pay dues can run for the board and vote in board elections, as well as be a part of the decision-making process for the organization. Members who choose not to pay dues are still included in all activities but are not allowed to vote or be on the board.

Tell us about your organization. What distinguishes you from others?
Being a multi-issue organization, we are focused on intersectionality and the ways in which working families are affected by a multitude of issues. For example, while we are organizing families around issues of early childhood education, we are also organizing around the issue of paid sick leave and a fair work week, both of which impact families and their access to early childhood education. By putting so much emphasis on intersectionality, we are able to increase our work and build our base.

MAKING AND CORE VALUES

What is your mission statement?
OLÉ is a nonprofit organization organizing working families throughout New Mexico. Our members and staff work together to strengthen our communities through social advocacy and economic reform, using issue-based campaigns and electoral engagement to ensure that working families are playing a critical role in shaping New Mexico's future.

What does it mean to "make" in your space/ organization?
Making not only gives our members access to DIY technologies, but we also have the opportunity to use makerspace as a metaphor for the work we do. Discussions about the maker process serve as a vehicle for our organizers to deconstruct systems that have historically been inaccessible to our members (i.e. the electoral process, holding lawmakers accountable, advocating for change, etc.).

How does the above relate (or not relate) to your core values?
Making is relatively new to our organization, but encouraging our members to create change on their terms has always been a core value of the organization. DIY technology is a natural fit for our members, particularly families and young people.

What forms of making (all creative endeavors) occur?
In the past, our youth interns used Arduinos to measure noise levels and foot traffic in the Bosque, which is a riparian forest that runs through Albuquerque. The young people used the Arduinos to make the point that conservation in an urban setting is vital to maintain spaces for communities of color. We have also used making in early education centers, including Makey Makey, which works well with 3-year-olds (making music using themselves as electrical conductors) and reverse engineering with older children. Children get to become makers during our member meetings and their families become completely engaged in the projects. Making with families has become a regular tool used by our organizers.

Are you influenced by any particular pedagogies (approaches to learning)?
Our work is mostly influenced by Paolo Freire's approach to popular education, with a focus on the collective learning from each other and our shared and individual experiences. We also gain pedagogical insight from current studies and discussions on tinkering, as it pertains to empowering people to take control of their own education and develop stronger communities while doing so.

What are some good examples of especially powerful/ambitious/successful making experiences?
The most powerful experiences occur when participants begin viewing themselves differently. They begin to light up when they figure out that they can use tools they didn't know they could use. Specifically, when teens who don't look like the majority of workers in Silicone Valley begin to *understand* programming microcontrollers or when young girls get a chance to break things they thought were untouchable, like store-bought toys and computers, that is the moment we define as successful making experiences.

GOALS

What are the goals of the programming and experiences provided?
For all of our programming, the goals are the same: we strive to empower individuals with new tools and concurrently develop meaningful communal relationships. We encourage experimentation, leadership development, cooperation, and thoughtful dialogues about the relationship between our community and the tools we seek to deconstruct or work with.

How do you know when you've met your goals? What are your metrics of success?
Our goals are measured with families returning to our programs/meetings as well as informal interviews with participants. For the programming with young adults, we measure our success on both interviews and their job placements/fields of study. We have found success with our youth group in Saul's expanded skill set, Katia's working in IT while studying at the Chicago Art Institute, Denisse taking programming class, and Victoria wanting to purse a career in tech development, programming, and making!

What are your plans and hopes for the future of your space and programming?
OLÉ's plans for future making programming is to break out of educational programming that we design to be able to facilitate skill shares (where community members teach workshops based on

what they already know) within the community, as well as repair cafes (community members help each other fixing and modifying their things so we don't have to rely on unsustainably buying new and more things). Similar to OLÉ's citizenship courses, we hope to have maker and emerging technology courses that prepare our working families for future industries, having them create prototypes and program apps that support our community and economy in a sustainable manner.

TOOLS

What are your most frequently used and commonly available tools?
DC motor and batteries, scissors, small pliers, screwdrivers, hammers, wire cutters, copper tape, LEDs, buzzers, used toys, vibrating motors, photocell resistors, toothbrushes, recycled junk, paper, pens, pipe cleaners, Makey Makeys

List any special tools that require supervision, training, and/or certification.
For our reverse engineering workshop, we make sure to supervise the use of tools.

What are the favorite tools (most popular/most desired, even if you don't have many)?
The Makey Makey is such an excitingly fun experience for children and adults!

Are there any tools that go largely unused, or that are no longer provided? Reasons?
We make sure to use everything we can.

MATERIALS

What are some of the most popular and frequently used materials?
Bananas, broccoli, and recycled aluminum materials (for the Makey Makey); strawberry baskets, markers, DC motor, and batteries (coloring with robots); and discarded computers (reverse engineering).

What are some of your most interesting/ unexpected materials?
Definitely bananas and broccoli. Parents and kids alike are always drawn to the Makey Makey.

What are the most continually reused materials? Most consumed?
We always start with markers and paper for workshops from reverse engineering to simple copper tape circuits.

COLLABORATION

What are some of the institutions and organizations that are sources of inspiration, support, and influence?
We draw a lot of our pedagogical and linguistic inspiration from the Allied Media Projects group in Detroit, Mich., and have lectured at their annual Allied Media Conference on our work with teens using Arduino in the Bosque. For work in the Early Learning Centers, we work with Elena Baca, who has been teaching the art of tinkering at Explora museum for 12 years and now works at the

National Hispanic Cultural Center, where we hosted a Cesar Chavez Day Arduino workshop focused on sustainable automation for gardening.

Describe any local, national, and global partnerships and collaborations.
OLÉ works closely with the New Mexico Museum of Natural History and Science as well as the New Mexico Highlands University.

SPACES AND ENVIRONMENT

In what physical places does making happen in your organization? A single dedicated space, multiple dedicated spaces, general use areas, a workshop (metal, wood, sewing, etc.), outdoors, a theater, a music studio, an art studio? Everywhere? Somewhere else?
Making generally happens at the New Mexico Museum of Natural History and Science as well as at Early Learning Centers. Through a partnership with New Mexico Highlands University, OLÉ is allowed to use space at NMMNHS, and most of our making happens there.

Elaborate on where making happens, if needed.

For many of our workshops, we try to make them mobile so we are not restricted to one space. If parents and working families need to meet for programming at an Early Learning Center, we are able to accommodate. Making happens everywhere.

How are the spaces, tools, and materials organized?
We set up our workshops in modular fashions to allow more independent learning. We allow students and families to move through workspaces that are set up on separate tables within a large space at their own pace, with designated assistants and occasional group discussions and lectures that take place while participants are at disparate activity tables.

How large is the space(s) where making happens? About 700 square feet.

Please describe how your site and makerspace(s) are staffed, including numbers of full and part-time staff and volunteers.
Andrea Serrano and Gabriela Hernandez are employees working on different campaigns who co-create curriculum and organize programming. Victoria Gomez and Miles Tokunow are volunteer members who co-create curriculum and lead programming.

First impressions of space(s):
Ideally, when participants first enter either OLÉ or the Early Education Center, they see the Makey Makey hooked up to bananas and broccoli and computers opened up. They hear the sounds of the Makey Makey piano, as well as the laughter and excitement of children who are becoming makers. They feel excited and surprised at the new experiences. They also feel less intimidated by technology. They leave with the knowledge that they can make something *really cool*, and sometimes they even leave with a piece of the computer they took apart!

Describe your approaches and priorities in creating environments for making/learning.
One that is inviting, inclusive, new, and promotes collaboration and sharing of materials and ideas. Most of all, we want it to be a safe space for working families to be able to experiment and have fun.

PROGRAMMING

Describe the kinds of programming offered.
All of our programming is centered around one idea: empowering working class communities by tinkering, making, and collaborating in a learning environment. We offer brushbot, reverse engineering, scribble machine, creative circuit, Scratch, and circuit-bending workshops currently.

How did your space and programming get started?
We began because of a partnership between NMHU graduate student and NMMNHS employee Miles Tokunow and OLÉ using Arduinos for data collection inside the Bosque as it was being threatened to be developed. Since then, the two organizations have been working to bring making to more communities while organizing around issues that threaten the health of New Mexico's working class families.

How do you decide on/design/make possible the space and components of the program?
OLÉ saw the empowering results of the work between Miles and the youth interns, and with pressure from the interns to continue more work that related to community technologies, OLÉ decided to make this work more accessible to working families.

How has your environment and programming evolved? What has worked well, and why? What has changed? What could still be improved?
We began with working solely with young adults and teens. That program was a success, and we hope to continue working with teens to create sustainable technologies that support working families. Since then, we expanded the programming to families and elementary to kindergarten-age children, to be able to organize toward affordable childcare in Albuquerque.

EQUITY AND ACCESSIBILITY

Are there segments of the population that you hope to serve better?
Parents who are also immigrants who feel they cannot access childcare assistance, low-wage workers, and families with young children.

What strategies do you employ to help increase the accessibility of your space/program to all learners?
We provide interpretation (English to Spanish), dinner and snacks, and provide a makerspace that speaks to various capacities.

What has worked well? What has been the greatest challenge?
Our greatest challenge has been having Early Learning Centers buy into the work. While, in theory, they are excited to bring new pedagogical trends into the classroom, they don't fully understand

making. We hope to quell this suspicion by beginning teacher trainings and inviting Center directors to our innovation and make evenings at the OLÉ office.