

Empowering community partners: A case study motivating environmentally sustainable behavioral changes in Latino migrant agricultural families

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Introduction

What influences Latino community interest in sustainability and motivates them to change their behavior?

What are the best methods to effectively educate and inspire the Latino community to make those changes?

These questions guided an undergraduate service-learning research project at Utah State University, which helped bridge a statewide environmental sustainability program with Latino families in Utah. The project goals were to 1) determine what influenced Latino interest in sustainability, 2) gauge what strategies should be used to positively produce behavioral changes, and 3) implement best strategies to change their interest and behavior.

To implement the project goals, the authors met with community members to find a partner with a large at-need Spanish-speaking audience to serve as a pilot. They then conducted a focus group to understand the needs and perspectives of their audience, and applied a service-learning model. The service-learning piece resulted in a partnership with the community partner in program development, in trial workshops with Latino children to initiate investment with parents, and culminated in a “family day” where parents and children shared knowledge and prepared their own home food production starting kits.

ABSTRACT

Environmental sustainability outreach programs can benefit significantly by connecting to and fostering change within the Spanish speaking community. This article demonstrates a case study in which the authors partnered with a local Latino organization through an undergraduate service-learning project. The goals were to incorporate environmentally sustainable behaviors both with young Latino students in school and with their families at the household level.

Literature Review

Institutions across the globe are educating people on the importance of sustainable living, from the International Human Dimensions Programme on Global Climate Change, to the American-born Earth Day Network among a myriad of others. Utah claims many of its own sustainability programs as well, ranging from the Utah Moms for Clean Air to the Utah Society of Environmental Education.

Utah State University (USU) Extension Sustainability, a leading university-affiliated environmental sustainability outreach program in Utah, defines sustainability as the “capacity to improve environmental, economic and social conditions (Utah State University Extension Sustainability, 2014). Environmental sustainability, the foundation of USU Extension Sustainability’s initiative, is the ability to improve the environment in one or more areas of land, water, air, food, and energy. USU Extension Sustainability educates the public on how to incorporate behavioral principles of environmental sustainability into their lives to improve the environmental, economic and social conditions stated above.

While USU Extension Sustainability effectively publishes material and initiates programs for English speakers, programs and materials were lacking for speakers of other languages. The 2010 United States Census demonstrates that Latinos are the largest ethnic minority group in America, counting for 16.3% of the total U.S. population (Ennis, 2011). Latino demographics are also among the fastest growing ethnic groups in America, increasing by 43%, or more than half of the total population growth from 2000 to 2010 (Ennis, 2011), and is projected to more than double in size from 53.3 million in 2012 to 128.8 million in 2060. This means almost one in three U.S. residents would be Latino (“U.S. Census Bureau Projections Show a Slower Growing, Older, More Diverse Nation a Half Century from Now”, 2012).

As a significant part of the United States population, the Latino community would benefit from being effectively educated and involved in the principles of environmental sustainability. This will provide avenues to increase understanding in the biophysical environment and its relevant challenges, increasing awareness of what they can do to remediate and solve environmental issues (Lewis & James, 1995), and, following USU Extension Sustainability’s definition of sustainability, improve this demographics’ economic and social conditions. Migrant Latino farmworkers are an especially vulnerable segment of the Latino demographic economically and socially, making only an average median annual income of \$7,500, compared to Latino workers in other sectors making an average median annual income of \$34,200 (Parra-Cardona, 2006, p. 362). Social challenges arise from a transitory lifestyle, as migrant agricultural workers work South during the winter and North during growing season (Hovey & Magaña, 2002), and is compounded by recent migrations consisting not of individuals but of whole families (Dalla & Christensen, 2005). Parra-Cardona et al. report that the challenges unique to agricultural migrant workers “also appear to have contributed

toward the systematic exclusion of Latinos from research, program design, and service delivery” (Parra-Cardona, 2006, p. 363).

This gap in extant literature includes addressing environmental sustainability programs for the United States Latino population. To better bridge this gap, researchers suggest that existing programs can be culturally adapted for ethnic minorities (Smith, Domenech Rodriguez & Bernal, 2011). Lau (2006) proposed that psychological treatments could be culturally adapted by anticipating the engagement needs of specific populations, suggesting that engagement depends on the degree that participants believe the treatment will be helpful. There is a majority consensus in literature that culturally adapted treatments should be delivered in the participant’s primary language (Smith et al., 2011). Keidan (2008) outlines important strategies in Latino outreach efforts including personal recruitment and communication, and utilizing opinion leaders within the community to mobilize their followers.

Mendez and Westerberg (2012) formed a partnership with their local Head Start (a national program promoting school readiness by providing services to children and families) to develop and implement a parent involvement program adapted for the Latino community. Nationally, thirty-six percent of children enrolled in Head Start are Latino (Aikens et al., 2010), making this demographic one of the largest groups served by the program. This provides an avenue for connecting with the Latino community nationally. Mendez and Westerberg (2012) “endorse the importance of establishing a collaborative academic-community partnership before conducting research and intervention studies” (Mendez, 2012, pg. 370).

Service-learning has the potential to assist Extension in establishing the “collaborative academic-community partnerships” endorsed by Mendez and Westerberg. Service-learning is defined by Jacoby as “a form of experiential education in which students engage in activities that address human and community needs together with structured opportunities intentionally designed to promote student learning and development. Reflection and reciprocity are key concepts of service-learning” (Jacoby, 1996, p. 5). In this context, Extension providers can utilize service-learning to partner with community members to culturally adapt existing programs to the specific needs of a demographic. Ward and Wolf-Wendel (2000) warn that without a correct perspective, service-learning can result in charity projects for the community instead of equal partnerships creating solutions. They expound, “For service learning to be the solution to troubled times in the academy and its constituent communities, it must be focused on empathy and empowerment. Campuses need to work in concert with the community to mutually identify problems, cultivate solutions, and identify causes of these problems” (Ward, 2000, p.774). This empowerment comes because “people feel a commitment to a decision in proportion to the extent that they feel they have participated in making it” (Knowles, 2005, p. 258). While the authors of this study were specifically interested in educating the Latino community on environmentally sustainable principles, collaboration with the community necessitated understanding the specific needs of this demographic before adapting existing Extension programs to best fit their needs.

Studies report positive impacts from service-learning projects with communities, with most communities being generally satisfied with student service and report improved university relations (Billig, 2002, p. 154). This could mean that Extension services utilizing service-learning would increase community rapport sufficiently that additional community members would opt to participate in Extension programs. Mendez and Westerberg's community partnership was so successful that recent immigrants outside of the Latino culture felt welcome participating in their parent involvement program (2012, p. 370).

Service-learning provides an informal learning context for both partners. Authors of *Learning in Adulthood* explain that, "Certainly informal learning contexts, including social action and community-based learning, are where much of adult learning takes place." When partnering with adults, Extension representatives may utilize principles of adult education to increase service-learning program effectiveness and participant motivation. This is especially important as adult learner motivation is often more vulnerable than that of younger learners (Wlodkowski, 2008, p.43). Authors of *Learning in Adulthood* propose, "with regard to meaningfulness, perhaps because an adult's learning is so closely tied to his or her life situation, adults are not inclined to engage in learning unless it is meaningful" (Merriam, Caffarella & Baumgartner, 2007, pp. 431-432). This is supported biologically as networks of neurons are built in the brain to represent what a person has learned, and "when adults learn, they build on or modify networks that have been created through previous learning and experience (Wlodkowski, 2008, p.11). Wlodkowski explains that "for all learning, the most pragmatic approach to instruction is to find ways to connect and build on learners' prior knowledge, to begin with what they already know and biologically assemble with them the new knowledge or skill by connecting the established networks and the new networks" (2008, p. 13). This prior knowledge will be different for adults and children; "A child's life is bounded by home and school, whereas an adult's life situation is defined primarily by work, family, and community" (Merriam, Caffarella & Baumgartner, 2007, p. 428). When culturally adapting existing programs, connecting the program material to what is most meaningful for community partners and applying it to their past life experiences may increase their motivation and program effectiveness.

In summary, Extension services can apply service-learning as a means of expanding environmental sustainability outreach to a more diverse audience. Latinos are an important part of the population, and service-learning provides a personal collaboration which facilitates the cultural adaptation of existing Extension programs tailored to meet local needs. Because service-learning provides an informal learning context, principles of education can be applied to build on community partners' prior learning experiences and frame that learning within their meaningful contexts.

Research Design

To better bridge the gap between environmental sustainability outreach and the Spanish speaking community, the researchers partnered with Migrant Head Start in Utah, a Head Start center for children of Latino agricultural migrants. A focus group was held to determine what influenced Latino interest in environmental sustainability, with

Head Start's education specialist, one of their social workers, and three mothers of participant children. The interview was conducted primarily in Spanish with the aid of translation by the social worker, and was later transcribed. Themes were identified using inductive analysis, resulting in five main influential factors, and the identification of the most effective program delivery methods.

Those results influenced the implementation of a series of five themed workshops for the children dealing with the five principles of environmental sustainability as defined by USU Extension Sustainability (land, air, food, water, energy). A service-learning approach allowed for ongoing collaboration with Head Start, and a "family night" was held to engage parents in what their children had learned.

Migrant Head Start

Seeking a community partner in need of environmental sustainability education, the researchers attended a community coalition meeting focusing on Latino health and were referred to a local Migrant Head Start center. After meeting with the education specialist there, it was determined that many of the center's goals were in keeping with those of the researchers, and that a successful partnership could be formed.

Head Start is a national program promoting school readiness of children through providing educational, health, nutritional, social, and other services to participating children and their families, as well as seeking to involve parents in their children's learning and to encourage their own progress towards attaining goals (Aikens et al., 2010). This study was conducted at a specially designed Migrant Head Start school, meaning nearly all the parents were Latino migrant agricultural workers. In Utah the center runs from April through December according to the agricultural growing season. The families migrate to other parts of the United States to work when the center is out of session.

Head Start cares for children from six weeks to five years of age. Most are Latino, and the older children often have the ability to converse in both English and Spanish. Only about half of the parents are able to communicate in English verbally. To involve parents in the education program, Migrant Head Start hosts monthly adult meetings at the center. Teachers tend to stay on for years, teach using Montessori methods of personal self-discovery, and focus on using nature and the environment to facilitate that learning. At the time of this study, Migrant Head Start taught two classes of twenty children each, ages three to five, in their Montessori programs.

Findings

The focus group interview was transcribed verbatim, translated, and translations were confirmed with a native Spanish speaker. Five dominant domains of influence affecting interest in and behavior change pertaining to environmental sustainability were extracted from data using open, axial, and selective coding.

These domains include 1) convenience 2) economics 3) social 4) family and 5) educational influences. These are discussed below, with names of participants changed, and translations from Spanish italicized.

Several examples from the focus group reflected how convenience facilitated living an unsustainable behavior. In the migrants' countries of origin, water supply was often scarce and was therefore conserved. However, these participants noted that although they are told they live in a drought, they are not as concerned about rationing because water is readily available.

Claudia: It's because here, they tell you water is scarce. But we don't see it. In our home country it's very difficult because they run out of water all the time, and we have to carry water to drink and bathe with. For that reason people don't think about it here, because it's so easily accessed... Maybe in California it's [less accessible], but not here. It's easy [to access and use].

The following is an example of how economic concerns keep these families from living environmental behaviors they already understand:

Maria: "One needs to separate the trash from recycling but just doesn't do it."

Translator: "Do you think people don't know which things they can recycle and which they can't?"

Ana: "Yes, we know."

Claudia: "Everyone knows."

Ana: "Yes, but one thinks about the cost of recycling. Why are they charging us so much to recycle trash?" ...

Maria: "One pays a lot."

Sociality influences these Latino families by engaging them in educational outreach. Participants agreed that internet-based outreach materials were ineffective and that printed fliers were left unread. Personal interaction through group activities motivates adult participation.

Translator: "If they printed 200 pamphlets... where should they put them? Where can they reach out to the Latino community?"

Claudia: "In the washing center. In the market or library. That's where more people go... This is why I said pamphlets don't work. Because sometimes we don't take the time to read it. It would work better to have group talks once per month to hear it, because for some people, such as myself, too many pamphlets come and with cooking, washing, and chores, the pamphlets stay on a corner and are forgotten about. That's reality."

The group was asked what they thought about teaching the children in Migrant Head Start about environmental sustainability through workshops. Ana's response exemplifies the influence family members have on each other to encourage living environmental principles.

Ana: "Yes, it's good to start with the children because the children are the most open

and quick to think of things after, and they can also lecture 'don't do this, Mommy'. My Jacob, when he finishes eating, takes his dirty dishes to the sink. And now he makes his dad do the same! Who didn't do it before! Now he makes his dad do it too!... My Jacob learned from here... And I tell my husband, 'How is it possible that your son will take his plate and cup and not you?' Now the table stays clean."

Both Ana and Maria shared how the education their children received, both at Head Start and at home, changed their willingness to engage in or accept sustainable behaviors.

Translator: *"They are going to teach the children in preschool. What kinds of things would be most helpful to learn?"...*

Ana: *"Nutrition is good. Nutrition, recycling, and how to care for water."*

Maria: *"I'd like everything. Because before [the Montessori learning program at Head Start], Natalie didn't care about water. Now she uses less water and tells me to use less. Now when she takes a bath she turns the water off."*

Ana: *"First I bathe Julian and then Jacob. Jacob says, 'This water is dirty, it has shampoo. Use clean water, this is dirty!' I tell him reusing the water uses less water than using fresh water. And he says, 'Okay'."*

The interview participants agreed that workshops taught to the children would be useful. After extracting the dominant domains of influence affecting Latino interest in environmental sustainability, the researchers implemented a service-learning contract to facilitate the workshops and ensure collaboration to meet Migrant Head Start needs.

Collaborative Planning Through Service Learning

During discussions with Migrant Head Start, the researchers learned that prior Migrant Head Start management had obtained materials with which to teach the children about food production: a rolling composter, a plant propagation light, and a worm composting system (vermicomposter). The equipment sat idle in storage because no staff members knew how to operate the systems. The researchers and Migrant Head Start determined that via service-learning, the needs of Migrant Head Start could be better met by providing training for their equipment, and the necessary supplementary supplies to use them. The researchers would teach the five environmental sustainability principles to the children in five themed workshops (land, water, air, food, and energy), and focus additional efforts in educating both children and their parents about local and home food production as a subset of the principle of environmentally sustainable food. This focus on home food production satisfied the five influential domains extracted from focus group data. Enabling home food production could reduce the economic stress of Migrant Head Start participants. Both students and parents would be taught through group activities, in the classroom and through a Migrant Head Start parent meeting. Familial relationships would be utilized by enabling the parents to bring their career skills into the home setting to share with their children. The migrant families would be

educated on what local resources they had to produce food at home, and would facilitate convenient home food production by demonstrating what could be done at home with limited resources.

To further develop the program, the researchers met with Migrant Head Start to analyze their internal strengths and weaknesses and external opportunities and threats (Houben, 1999) to help achieve full program potential. Perceived barriers and potential benefits to sustainable behaviors were also discussed to further identify challenges and maximize opportunities. During these meetings, Migrant Head Start and the researchers decided that community experts would be brought in to train staff in the use of their food production equipment, and that a binder of resources would be compiled to provide how-to manuals and educational resources to answer additional questions they would have.

Community-based marketing strategies (McKenzie-Mohr, 2011) were discussed and planned with Migrant Head Start, which would increase behavioral changes through engaging and motivating Migrant Head Start staff and participant families, extending the longevity of the program.

Impacts

Through service-learning, local experts trained Migrant Head Start staff in how to use their food production equipment and supplied them with the necessary supporting resources to begin using the equipment immediately after training. To assist Migrant Head Start with future questions and challenges, a binder was given to staff members to provide additional resources. The binder included contact information for local gardening centers and university Extension staff trained to help with food production, and additional resources for classroom lessons, activities, and mini labs to learn about environmental sustainability. This helped Migrant Head Start sustain their food production once the training was completed.

The environmental sustainability workshops were completed with the children, utilizing community-based social marketing strategies to encourage behavioral changes both in the students and their parents. Highlights included them planting their own pea starts to plant at the school, learning about vermicomposting from a local expert, and coloring “Be Idle Free” car hangers in Spanish for them to take to their parents (a subliminal social marketing tool).

Migrant Head Start hosted a gardening parent night where instead of teaching the parents how they should garden, they approached the parents with an attitude of “You do this for a living, and we want to install a garden on Migrant Head Start property. You teach us how we should do this.” The parents were excited to share their skills with their children, and with Migrant Head Start planned a “family night” to install the garden.

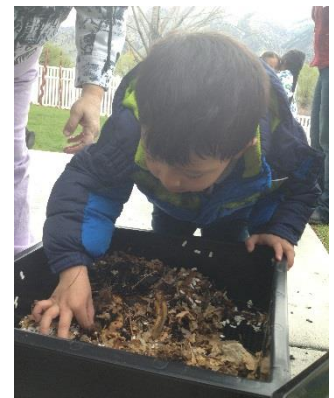


Figure 1 This child was terrified of the composting worms before the workshop. After, he carried worms to show to all his teachers.

The family night was the most successful family activity Migrant Head Start staff members could remember. Thirty-five parents attended, and the adults and children worked together to install a vegetable garden in the backyard of Migrant Head Start. Nineteen of the families built and took home their own vermicomposting system. Families were able to take home plant starts to start their own home food production, and were encouraged to come and participate further at the center.



Impact statements include the following:

"A lot of the dads were really excited and they were talking about the soil... in their own way they were teaching their kids and it was cool to see because you could tell that didn't happen at home."

Figure 2 Head Start staff said such active involvement by the fathers was rare.

"A lot of the dads were even talking to other parents... and they were teaching each other too. ... and they were all collaborating ideas."

"I've never done a garden or anything, and yesterday I just went to Home Depot and got me some tomatoes."

"There were full families that were so excited; these guys were so excited to take stuff home. Everyone was getting their hands dirty, their kids were out there... This little girl has spina bifida but she's still right there, hanging onto the bucket!"



Figure 3 Children helped their parents overcome reservations about taking home their own vermicomposting (worm composting) kits

"We're still not done planting. So the parents know this is a continuous process. I had one dad pull me aside and he's like "so can we come and watch the plants grow?" and I was like "Yeah, and you can also come while the kids are outside and weed, and then you'll probably have a whole bunch of kids weeding too! And he was really excited cause he was a really reserved dad. I don't see him participate a lot, and he was actually really excited too. And he was like, 'I want to come watch the plants grow'."

"The parents weren't too sure [about the vermicomposting], but once their kids started getting into it, [they said] 'oh, okay!'"

Conclusion

Environmental sustainability outreach programs may successfully be adapted for their respective Latino communities. This case study demonstrates how researchers collaborated with a local Latino community partner utilizing service-learning to effectively understand and meet their needs while achieving educational goals. Results suggest that environmentally sustainable behavioral changes can be encouraged in the Latino community by addressing economic, social, educational, family and convenience factors through effective group activities. Parents are excited to share knowledge with each other and with their children, and are motivated by the encouragement of their children. Service-learning provides an excellent tool for partnering with community members to meet needs and produce behavioral changes, and are most effective when utilizing educational principles to motivate and engage community partners.

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