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# **Designing and Implementing Environmental Sustainability Curricula for the Latino Community in Logan, Utah**

Proposal by  
Ivy Harvey

## **Abstract**

Fostering awareness of and behavioral change pertaining to sustainability is an important objective of USU's Extension Sustainability outreach program. The first Extension program of its kind in the nation, USU Extension Sustainability has the potential to set high standards which will be mirrored across the United States (US). While this program effectively targets an English speaking audience, it does not yet have a communication channel for the Spanish speaking community. The objective of this thesis is to partner with local Latino organizations to meet their needs in developing and implementing environmental sustainability curricula using Extension Sustainability camp curricula as a foundation, and to test if this curricula effectively inspires awareness of and behavioral change in the Latino community in their relationship with environmental sustainability.

## **Introduction**

### **Interest**

I am passionate about self and community reliance, food security, and good stewardship of the earth. I have designed my own undergraduate plan of study to empower me to be capable and effective in teaching these principles to others, with the goal of enabling their own independence and sustainability ethic.

After a six---week humanitarian service trip to India, where I had the opportunity to design and install a large square foot garden in a rural village, I decided I would be most effective implementing my knowledge in the US. The technology available here facilitates communication and implementation of new ideas.

After serving as a volunteer missionary in Guatemala for 18 months, I realized that I could benefit the Latino and immigrant community in Utah. Many of them are interested in the same concepts of self---sufficiency, food security, and taking care of the earth, and they want to implement these principles here.

Even though I had the idea to reach out to the Latino community, I didn't know how. Dr. Mark Brunson pointed me to Dr. Roslynn Brain's Extension Sustainability program, and I was delighted to find that she has been compiling resources and creating fact sheets that teach these concepts of sustainability and self---reliance that effectively reach an English audience.

Knowing that there is interest in and need of these principles in the Latino community, and having the resources to be able to meet them through the USU Extension Sustainability initiative and local community organizations, I expect to create a curricula that begins to meet the needs of the Spanish community.

## **Literature Review**

Institutions across the globe are working to educate people of 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. Utah State University Extension Sustainability, a leading university---affiliated environmental sustainability outreach program in Utah, defines sustainability as the “capacity to improve environmental, economic and social conditions”. 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. Effectiveness in these programs is achieved by teaching these principles in ways that increase awareness and behavioral change.

Utah demographics are changing to reflect increasingly higher proportions of minorities, especially those of Latino descent. The Deseret News reported that in 2010, Latinos made up 16.3% of Utah’s population and 62% of Utah’s foreign---born population (Cortez, 2012). As a significant part of Utah’s population, the Latino community would benefit from being effectively educated and involved in the principles of environmental sustainability. This will not only provide avenues to increase understanding in the biophysical environment and its relevant challenges, but will also increase aware of what they can do to remediate and solve environmental issues (Lewis & James, 1995).

Local environmental issues demonstrate the challenges and opportunities that are as applicable to the Latino community as they are to the rest of the population. As an example, the Logan, Utah, Landfill is scheduled to close in 2026 and move to Idaho, and the Cache County Latino community can be educated in recycling to reduce waste and extend the life of the landfill. Also, according to the Utah Division of Water Resources, Utah is the second driest state in the nation while also having the second highest water use rate in the nation (Utah Division of Water Resources) and the EPA rates Utah as having the worst air quality in the nation during certain days of winter inversion (O'Donoghue, 2010). At 14.5% of Cache County’s population (Cortez, 2012), the Latino community can make a difference in changing these statistics. Extension Sustainability has published fact sheets ranging from water conservation to producing one’s own food. Such skills could enable higher food security in a notoriously food insecure community. Regarding energy, job opportunities are increasingly available in the energy sector, as evidenced locally in the solar panels just installed by Logan city.

The Latino community will be more likely to apply environmentally sustainable principles if they fully understand what they are doing and why (Lopez, Peterson, Craigmill, Martinez, Parnell, Rene & Turner, 1999). Non---formal teaching methods have been employed by Extension services partnering with established community organizations to effectively educate the Latino community on subjects such as lead poisoning prevention through training meetings (Lopez, Peterson, Craigmill,

Martinez, Parnell, Rene & Turner, 1999) , and other subjects through camps for children (Farner, Cutz, Farner, Seibold & Abuchar, 2006).

Success in teaching these principles in non---formal settings should be founded on principles of good teaching (Brain & Fuhrman, 2009). This will allow the environmental sustainability curricula to be effectively taught to the Latino community.

### **Research**

#### **Problem**

This research project will investigate whether USU Extension Sustainability efforts with local multicultural organizations can effectively increase awareness of and behavioral change in the Latino community on environmental sustainability principles. I am interested whether this can be achieved through non---formal educational opportunities.

I predict that USU Extension Sustainability efforts may effectively reach the Latino community when partnered with community organizations that the local Latino community respects. One of the foundational traits of “good” teaching in non---formal settings is a solid relationship between the instructor and student (Brain & Fuhrman, 2009), and this may be achieved by partnering with organizations that have solid relationships within the Latino community.

#### **Methods/Timeline**

This research project will consist of interviews, development of a curricula, implementation of the curricula, and surveys to determine pre and post knowledge of and interest in environmental sustainability principles. USU Extension Sustainability successfully developed and implemented a weeklong camp to teach children about sustainability, and their curricula will be used as the foundation for this research project’s curricula.

In October a focus group between myself, Dr. Roslynn Brain, and respected leaders in the Latino community will be held to ascertain the needs of the local Latino community, their current knowledge of environmental sustainability principles, the best audience for the curricula, the best organizations with whom to partner to deliver the curricula, and the best format for delivery. Throughout November the results of this focus group will be used to develop a curricula to teach the principles to the target audience. The curricula will be implemented in January and February, with the impact analyzed between February and March. The written report will be completed in March and the project will be presented in Student Showcase in April. The research will be written into a journal article submitted to either the Journal of Sustainability Education or the Journal of Extension.

## **Budget Narrative**

To successfully conduct this proposed project, reimbursement for travel, as well as costs for curricula graphic design, printing, and materials to deliver the program will be required. These are listed within the budget template, below.

## **Expected Results**

I expect to learn that the Latino community responds positively to a curricula delivered in partnership with an organization they know and trust. I expect that the curricula tailored to apply to their interests and needs will inspire them to live environmentally sustainable behaviors, measured via a retrospective post---then---pre assessment.

## **Possible Limitations**

This project is dependent on determining a key local organization through whom to connect to the Latino community. This research may not be generalized outside of Cache County without a sufficient number of organizations that could be found across the nation; as such, a small sample size could limit applicability. The research also depends on developing a curricula best suited to a target audience.

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## URCO BUDGET SUMMARY

<b>EXPENSES:</b>	<b>AMOUNT:</b>
<b>TRAVEL:</b> (only to support the project, not for conference attendance or presentation) (Attach <b>ALL</b> receipts)	
Mileage (x amount of miles x .485)	
24 x 20 x .485 = \$38.80	\$38.80
TRAVEL SUBTOTAL	\$38.80
<b>MATERIAL/SUPPLIES:</b>	
Marketing and Design costs	
Extension Marketing graphic design	\$300.00
Printing	\$200.00
Composting bins (50 x \$6.60)	\$325.00
Vermicomposting worms	\$ 75.00
MATERIALS SUBTOTAL	\$900.00
<b>EQUIPMENT:</b>	
Scales to weigh food waste (3 x \$15)	\$45.00
EQUIPMENT SUBTOTAL	\$45.00
<b>MATCH: (by ENVS)</b>	
Extension Specialist Time	[\$500.00]
Future curricula updates and printing by USU Extension Sustainability	[\$500.00]
MATCH SUBTOTAL	\$1000.00
TOTAL URCO BUDGET	\$983.80
TOTAL BUDGET (URCO +MATCH)	\$1,983.00
EXPENDITURES	\$
TOTAL:	\$