# How are attendance at a farmer's market, environmental learning, and environmental behavior related?

# Lazara Ramos

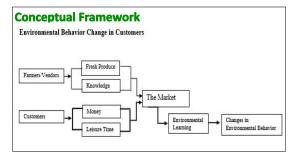
Advisors: Nicole Ardoin, Rachelle Gould, Jennifer Thomsen, Noelle Wyman Roth

#### Abstract

Farmers' markets in the Bay Area have rapidly grown in popularity in the past years. As more customers choose to shop at farmers' markets, we wanted to explore if they are learning about the environment at the market, and whether or not this learning is changing their pro-environmental behavior. We conducted a study focusing on an innovative nexus to better understand the link between learning in behavior. We asked ourselves: what is the relationship between attendance at farmers' markets, environmental learning, and pro-environmental behaviors? Our study takes places within the second phase of Dr. Ardoin's Environmental Learning in the Bay Area study, which seeks to answer "How, where, why, and with whom do people learn about the environment in everyday life, and what motivates them to act sustainably?"

### A Case Study

	Mountain View Farmers' Market	East Palo Alto Farmers' Market
Run by:	the CA Farmers' Market Association	Collective Roots
Time:	Every Sunday. Year- round. 9AM-1PM.	Every Wed. Nov-April. 12PM-3PM.
Location:	Mountain View CalTrain parking lot	Ravenswood Family Health Center Courtyard
Size:	~100 Stands	3-5 Produce Stands
Pertinent Info:	very large, serves a diversity of customers, highly-rated farmers' market	serves mainly Hispanic customers, Spanish is primarily spoken, utilizes many forms of CA food subsidy programs



#### **Methods**

We collected four types of qualitative data and one type of quantitative data:

- Customer interviews at the two farmers' markets
- · Structured observations between vendors and customers
- Vendor interviews at the two farmers' markets
- Digital photographs of signage and display at the two farmers' markets
- · Demographic information of all participants

Customers were interviewed after leaving the farmers' market, and were asked a variety of questions about their experience at the market, specifically experiences related to learning and behavior change. At the East Palo Alto farmers' market, the interview protocol was adapted to be conducted in Spanish, and include the questions designed by Collective Roots. The structured observations occurred inside the market stands, where I was able to discreetly observe any interactions occurring between vendors and customers.



#### **Data Collected**

Market	Date Collected	Count
Customer Interviews		
Mountain View Farmers' Market	08/03/14 - 09/14/14	40
East Palo Alto Farmers' Market	08/06/14 - 10/15/14	20
		Total: 60
Observations		
Mountain View Farmers' Market	08/03/14 - 09/14/14	168
East Palo Alto Farmers' Market	08/06/14 - 10/15/14	88
		Total: 256
Vendor Interviews		
Mountain View Farmers' Market		2
East Palo Alto Farmers' Market		5
		Total: 7
Digital Photographs		
Mountain View Farmers' Market	08/03/14 - 09/14/14	16
East Palo Alto Farmers' Market	08/06/14 - 10/15/14	74
		Total: 90

#### **Preliminary Results**

We have connected some common themes from our raw data to the ELBA research propositions below (everyday needs, interpersonal interactions, institutions, and ages & stages).

The learning behavior link is strongest when connected to everyday needs.
Some people cited that they go to the market every week to buy enough produce for their daily meals, while others go to buy food for the day. Common reasons for choosing the farmers' market were price and quality of the produce.

"Well, because we are on CalFresh and they [Collective Roots] actually have the chip program where you get twice as much. So it actually lowers our food cost. Plus organic being as expensive as it is in the market, it tends to steer me here." (EPA)

 Interpersonal interactions and norms are critical to the learning-behavior link. Customers have noted that there motivations to go to the market may be personal. There is a sense of community that they find within the farmers' market

"Yeah I think we just come here more for the environment. It just feels more relaxing than going to some indoor shopping." (MV)

# **Preliminary Results Continued**

Institutions must explicitly address behavior to affect behavioral change (i.e., learning along is not enough). We saw that many customers have established a level of trust with their vendors. This trust often allowed the customer to feel comfortable with asking their vendor questions about the produce, seasonality, etc.

The customer asks the vendor about the strawberries and seasons. The vendor brings out a binder of documents, and opens it to show her what his farm grows in the different seasons. (EPA)

The learning-behavior link varies by "ages and stages." From the customer interviews and observations, it seems that the customers' particular age or stage in life affects how they interact with the vendors, and therefore how/if they learn.

"The peaches, and the watermelons taste like really delicious. Like what I remember when I was a kid..." (MV)

#### **Next Steps**

- Data Organization: complete transcriptions of all interviews
- Analyze Data: Understand, through combination of quantitative and qualitative data, iffhow people are learning, and if/how that may influence their environmentally-related behavior
  - I will be coding the data using NVivo, a qualitative data analysis software.
  - Referring upon my codebook for qualitative analysis, I will first code for the case study propositions, and then code for emerging themes and trends amongst the data.
  - The data will be compared and analyzed by factors such as location, demographics of participants, data type, etc.
  - I will send my EPA-specific data to Collective Roots to be used to inform their organization's practices.
  - The conclusions I draw from the data analysis will be shared and compared with the "Environmental Learning in the Bay Area" project, and with the other case studies.
    - The other two case studies are looking at the environmental learning and behavior nexus in seafood markets and free-choice learning settings.

## **References**

Alkon, Alison. "Paradise or pavement: the social constructions of the environment in two urban farmers' markets and their implications for environmental justice and sustainability." Local Environment: The International Journal of Justice and Sustainability, 13:3, 271-289. 2008.

McGrath, Mary Ann & Sherry, John F. & Heisley, Deborah D. "An Ethnographic Study of and Urban Periodic Marketplace: Lessons from the Midville Farmers' Market." Journal of Retailine. Volume 69 Number 3. 1993.

Vermeir, Iris & Verbeke, Wim. "Sustainable Food Consumtion: Exploring the Consumer "Attitude- Behavioral Intention" Gap". Journal of Agricultural and Environmental Ethics 19:169–194. 2006.

#### Acknowledgements

I would like to thank the Mountain View Farmers' Market for allowing me to interview customers, and Collective Roots for inviting me into their community and allowing me to conduct research each week. I also owe many thanks to the generous support and quidance from Nicole Ardoin. Rachelle Gould. Noelle Wyman Roth, and Jennifer Thomsen.