Making a Difference with Public Education

Leesa Souto
UCF Stormwater Management Academy
October 20, 2010
Advancing Restoration of the IRL Workshop
Public education can be a measurable source control

Just because it isn’t easy doesn’t mean that it can’t be done

Begins with a thorough understanding of the audience in terms of their numbers and attitudes

Includes a measurable impact to environmental quality

No better time than the present to start…

- TMDL credit for source reduction
- NPDES permit requirement
- Coming soon – Strategic Education Planning
There is a source...
Getting to know the source of nonpoint source pollution…
Segmenting Target Audience

- How many are there and what portion of the population do they represent?
- How many are engaged in the chosen behavior and how many are not (adopters and non-adopters)?

These numbers will become the equation used to measure change over time.

- What are the benefits and barriers of adopting the behavior for each segment?
- To what extent is the segment receptive to change?

This information will clarify challenges, messages, and the likelihood for change.
Research Methods

- Surveys (Telephone, email, face to face)
- Focus groups (Face to face, email)
- Interviews (Intercept, door to door)
- Observational studies

Choice of method depends on population size, research question, and budget
Case Studies on Pet Waste Disposal

- Pollutant(s): Fecal coliforms/nitrogen
- Polluting Behavior: Leaving pet waste on the ground
- Who is the target audience? Where are they?
- What prevents them from doing the non-polluting behavior?
- What would motivate them to do the non-polluting behavior?
- What influences their behaviors?
Who is the target?

Who is reachable?

- Dogs being walked?
- Dogs in the yard?
Tampa Bay Pooches for the Planet

- **Target** - Pet walkers in two neighborhood parks adjacent to waterways
- **Strategy** – Homeowners education and disposal stations
- **Methods** - Participatory research, intercept pre and post surveys, and GPS measures
- **Measures** – Barriers and motivators, knowledge, behaviors
Why would someone pick up or not?

- #1 Motivator - Neighborhood courtesy
- #1 Barrier - Thought it was good for the grass (fertilizer)
- To pick up or not to pick up - Which behavior is easier?
Pooches Strategies

- Concentrated outreach to dog walkers in each park
- Emphasized link between dog waste and water quality
- Engaged neighbors to educate neighbors
- Set up pet waste receptacles
Measurable Outcomes

- Pre- and post-campaign number of pet waste piles

- Park #1
  - After 3 months, 35% decrease
  - After 5 months, 45% decrease
  - After 8 months, 48% decrease

- Park #2
  - Initially measured 25% increase
  - After campaign, 20% decrease
City of Gainesville Scoop the Poop Campaign

- Purpose of research
  - Establish knowledge benchmarks
  - Assess target audience motivations to picking up pet waste
  - Identify barriers to pet waste pick and disposal
- Method: Telephone survey
Knowledge Benchmarks

To what extent do you agree with the following (strongly agree reported)

- Humans can get sick from dog waste left on the ground (40%)
- Dog waste can harm local water bodies (31.5%)
- Putting dog waste in landfills is worse for the environment than putting it on the ground (28%)
- Dogs can get sick from dog waste left on the ground (25%)
- Dog waste can serve as fertilizer (24%)
Why do adopters do the behavior?

Why do you pick up your dog’s waste?

<table>
<thead>
<tr>
<th>Reason</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Right thing to do</td>
<td>61</td>
<td>45%</td>
</tr>
<tr>
<td>Don’t want to step in it</td>
<td>85</td>
<td>62.5%</td>
</tr>
<tr>
<td>Smells bad</td>
<td>58</td>
<td>42.5%</td>
</tr>
<tr>
<td>Bad for environment</td>
<td>33</td>
<td>24%</td>
</tr>
<tr>
<td>Kids can get sick</td>
<td>30</td>
<td>22%</td>
</tr>
<tr>
<td>Dog can get sick</td>
<td>38</td>
<td>28%</td>
</tr>
<tr>
<td>It’s the law</td>
<td>29</td>
<td>21%</td>
</tr>
<tr>
<td>Don’t want neighbors see</td>
<td>34</td>
<td>25%</td>
</tr>
<tr>
<td>Friends and family do it</td>
<td>24</td>
<td>17.5%</td>
</tr>
<tr>
<td>Other</td>
<td>19</td>
<td>14%</td>
</tr>
<tr>
<td>Don’t Know</td>
<td>3</td>
<td>2%</td>
</tr>
<tr>
<td>Refused</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>
Scoop the Poop Campaign Market Strategies and Outcomes

- Appeal to gross factor
- Message focused on the negative of stepping in pet waste in their videos and posters
- Most memorable source of information was television
- 10% reported changing their behavior after hearing the campaign
What was measured?

- Population in terms of how many there were and how many were reached
- Level of knowledge, attitudes, beliefs before and after campaigns
- Where people received the message
- Reduction in pollution (piles)
- How do you measure the likelihood for people to adopt a certain behavior?
Assessing the likelihood for change

- Can be quite complicated, requiring societal changes or structural devices
- Often requires a stepped approach to behavior change
- Can be predicted by regression models
Stages of Change

Where is your audience in terms of their willingness to change?

Goal is to get to the next level...
Influences on Water Conservation Behavior Regression Model

- Trumbo & O’Keefe, Society and Natural Resources, 18:573–585
Research Costs

- TBNEP two projects (Pooches for the Planet and Fertilizer Focus Groups) Cost $36,000
- City of Gainesville Pet Waste Evaluation Pre and Post Surveys Cost $30,000
- Wekiva Fertilizer Telephone Survey (n=741) Cost $30,000
- Landscaping Perceptions and Behaviors
  - Telephone Survey (n=80) Cost $24,000
  - Interviews (n=100) Cost $20,000

Much less expensive than typical structural design and installation
Program Evaluation Research

- Purpose and Focus
- Situation Analysis
- Describe Target
- Set Measureable Objectives
- Identify Barriers, Benefits & Competition
- Position Statement
- Strategic Marketing Mix (The 4Ps)
- Implementation Plan
- Campaign Budget
- Evaluation Plan
Fortunately, we have friends to help!
Stormwater Education Task Force

- Collaborate on project planning, implementation, and evaluation
- Share research results and program materials
- Meet quarterly throughout the state
- Next meeting on Dec 16 in Palm Bay

Contact Leesa @ LSouto@mail.ucf.edu
Stormwater Education Toolkit

- Three volumes target public, government, and business
- Assist local education and public participation programs
- Guidance manuals and publications in printed and electronic forms
- 250 SETs distributed

www.stormwater.ucf.edu/toolkit/index.htm
- Mailed/emailed quarterly
- More than 1000 subscribers
- Share events, funding ops, and information on nonpoint source education programs
- Topic focused
- Spotlight individuals, programs, and products
Florida Stormwater Education SuperSite (2011)

- Education Program Directory
- Educational Materials SET Toolkit
- Pilot Projects and Programs
- Social Data Repository
- Task Force Discussion Forum & Information Sharing
- Events
- Newsletters
How much time will it take?

I’ve always done it that way.

I like to play in rain puddles.

Oops! I forgot to bring a bag.

I hope I don’t step in it!

I’m proud of the job I do.

What kind of environment are you leaving me with?

I love mowing the grass…

What difference does our small contribution make?

I don’t really live here, I just retired here.
Thank you!

Contact Information:

Leesa Souto  
Director of Public Education  
Stormwater Management Academy  
108 S. Babcock Street  
Melbourne, FL 32901  
321-722-2123  
Lsouto@mail.ucf.edu

Funding for Florida Stormwater Education & Social Marketing provided by a Section 319 Clean Water Act grant from the US EPA administered by the FDEP Bureau of Watershed Management