Educating for Transformative Action

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Let’s start with a story

- GOAL: Increase energy efficiency
- ACTION: Advertised the benefits of insulation
- RESULT: Spent more than the cost of upgrading targeted homes
- OUTCOME: Energy efficiency was unaltered

(McKenzie-Mohr, 2000)
Premise of Information & Attitude-Based Approaches to Sustainable Action

Only if We Care, We’ll Act

“In the end, we will conserve only what we love. We only love what we understand. We only understand what we are taught.”

~Ecologist Babia Dioum Senegalese
  (Donahue 2008; Purrenhage 2010)

“Only if we understand can we care. Only if we care will we help. Only if we help shall [chimpanzees] be saved.”

~Ecologist Jane Goodall
  (Rimington 2010)
Educating for Sustainability
Faulty Assumptions & Behavior Change Failures

‘Information Deficit’ Model $\rightarrow$ Awareness $\rightarrow$ Concern $\rightarrow$ Action

- Knowledge will lead to change
  - Yet research has proven time & again otherwise

  “[Environmental educators] still believe—so very strongly—in the knowledge>attitude>behavior model of learning when, at the same time, we know how desperately inadequate this is when it comes to changing the citizenship behaviors of large numbers of learners over long periods of time.”

~Dr. Harold Hungerford, a well-respected environmental educator (Simmons and Volk, 2002: 7).
Moving beyond information but not abandoning knowledge

While researchers agree that *information alone* will not motivate someone to adopt a new behavior, it is clear that the lack of information can be a *barrier* to changing behavior (Monroe, 2003, pp. 118)
Beyond Traditional Informational Approach
4 Knowledge Domains

1) **Declarative**: scientific, technical, or mechanical understanding of how the world works → **factual information**

2) **Procedural**: knowledge about how best to do a particular activity to achieve behavioral outcome → **how-to information**

3) **Effectiveness**: knowledge & awareness of outcomes for specific actions → **perceived consequences/behavioral beliefs**

4) **Social**: understanding of peoples’ expectations of un/acceptable or un/desirable behaviors → **normative beliefs**

**typical focus of education, yet least effective**
Drivers of Action for Sustainability

Psychological theories emphasize personal agency → attitudinal factors, such as:

- **Behavioral judgments**
  - Beliefs re: outcomes
  - Attitudes re: behaviors

- **Normative views** re:
  - What others expect
  - Pressures to conform

- **Control beliefs** re:
  - Ability to take action
  - Constraining factors

Ajzen et al.’s Theory of Planned Behavior

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Drivers of Action for Sustainability

**Attitudinal factors emphasized:**

- **Values**
  - Selfish vs. altruistic
  - Biocentric vs. anthropocentric
    (ecological worldviews)

- **Beliefs**
  - Perceived consequences
  - Ascribed responsibility

- **Norms**
  - Sense of obligations
  - Desire to conform

- **Plus**, personal capability, context
  (situational forces), & habit/routine

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**Stern et al.’s Value—Belief—Norm Theory**
What programs have been successful in motivating sustainable behavior change?

The most convincing and well-documented work in environmental behavior change comes from community-based social marketing campaigns.
Community-Based Social Marketing (CBSM)

A Situational Approach to Behavior Change

CBSM employs a holistic, context-specific approach:

1. Identify barriers to specific behavior change
2. Design a strategy to remove barriers
3. Pilot the strategy with various possible tools
4. Evaluate progress & outcomes
Tools used in CBSM Approach

Behavior Change Tools
• Public Commitments & Pledges
• Prompts
• Norm Development (modeling behavior)
• Incentives
• Convenience
• Diffusion Strategies

Displaying collective impact of individual commitments
How do Social Norms work?

• Seeing others performing the behavior
• Being told that others perform the behavior

Note: tapping into people’s desire to conform often has long-lasting effects & low costs.

• Desire to comply (do what they should)
  - People want to receive positive feedback/rewards …& to avoid negative feedback/punishments

• Desire to conform (do what others do)
  - People want to be seen as normal & to be prestigious/successful
Instill & Reinforce Social Norms

Visual Notices
“This household composts”
“75% of your neighbors recycle”
“You use more electricity than 70% of your neighbors”

Modeling Others
- Seeing others pick up litter
- Utilizing both DISSCRIPTIVE & INJUNCTIVE norms
Use Prompts as Reminders

Point-of-Action
“Buy this returnable bottle”
“Recycled-content!”
“Turn off the light!”

Use very precise language:
“Buy recycled content paper”
Broad mantras e.g. “Think global, act local.” are NOT effective

Add Visual Interest
Catching the attention of passerby was shown to increase the amount of litter disposed properly by 61%.
CBSM: Strategy for Success:

Make it Convenient

Preferential Parking

Technology Delivered Free!

Curbside Compost Collection
Utilizing CBSM Approach & Tools to promote Transformative Action in Education Programs

Example: Composting during my case study program

I. Identifying barriers to specific activities:
   - Pre-Program Survey
   - Household Survey

II. Design strategy to remove barriers:
    Barriers sited were convenience, cost, lack of procedural knowledge, & odor
Education Strategy- Tools

III. Pilot Strategy with multiple tools

A. *Convenience*: compost bin next to the garbage/recycling

B. *Prompt*: poster directly over composting bin

C. *Incentivizes*: Stars for being ‘caught acting sustainably’

D. *Habit & Norm building*: Composting every day!

E. *Public Commitment & Pledge*: The students made public commitments to compost & pledged to share their commitment.

F. *Providing necessary knowledge/skills*: Waste Audit & Building compost bins--also overcoming initial start-up costs.

*Note*: These strategies do not focus on information about methane or landfills as done in traditional education approaches
Education Strategy - Evaluation

IV. Evaluate Progress & Outcomes

- On the final day, the students parents came and all but one student took home composting bins (large outdoor or small indoor)
- Post-program survey: 100% of students stated that the program changed their waste behaviors
- Home visit (6 months after program): visually confirm that long-term change occurred
What would you do?

• The Student Recreation Complex is trying to promote the use of reusable water bottles
  – Currently, they have made refilling your water bottle convenient & they have posted signs around the gym explaining the environmental issues associated with using single-use disposables
  – What would you do to increase the use of reusable water bottles at the SRC?
Possibilities

• Focus on diverse values:
  – Rather than just putting up information about the environmental benefits, add information about the economic & social benefits
• Place Prompts on the water coolers:
  – Create a sign that says ‘Ice-cold water for your refillable water bottle’ hence also creating an incentive
• Modeling Behavior
  – Make a refillable water bottle a part of the staff uniform
• Create a commitment wall of refillable water bottle users

I commit to using a refillable water bottle
- Erin Frisk
Thank you!

• Questions?
• Comments?
• Discussion Points

Excellent Resource:
• http://www.cbsm.com/public/world.lasso
How do we speed up Social Diffusion?

- Spread the word & action thru social networks
  - What family & friends say & do matters
- Get early adopters to commit & target key audiences
  - Focus on opinion leaders & people with impact!
- **Factors affecting adoption:**
  - Relative **advantage** (increasing benefits)
  - Perceived **risks** (reducing costs)
  - **Complexity** (minimizing challenges)
  - **Compatibility** (addressing values & norms)
  - **Trialability** (allowing flexibility or trial periods)
  - **Observability** (ensuring visibility to others)
Foster Social Diffusion

Take Photos
Smiling friends or colleagues
with reusable water bottles

Mark Commitments
Stickers or arm bands to
make people notice

Friends don’t let friends
drink bottled water.
How does Commitment work?

Written & public commitments that require immediate action work best!

- People **desire consistency** in what they say they will do & what they do.
  - Voluntary, **snowball** effect
  - Work from **small → large** commitments
Get them to Commit!

If sticker first . . .        . . . 76% agree to billboard!

“’I’ll do it & I’ll get my neighbors to do it too!’”

John Hancock
Communicate Effectively

How can we Communicate Effectively?

• Use **captivating** information  
  - Vivid, conspicuous, interesting, relevant, concrete

• Keep it **short & sweet**  
  - Clear, specific, easy to remember

• Know your **audience**  
  - People want to be seen as normal

• Use a **personal &/or credible** source
Communicate Effectively

Vivid Comparisons

“If you added up all the cracks . . . you’d have a hole the size of a football in your living room”

Direct Contact

- Personal appeals
- Trusted sources
- Word-of-mouth

Provide Feedback

- How we’re doing (energy, water savings etc.)

Water Use in Your Home

Lawn 34%

Toilet 20%

Laundry 15%

Kitchen 5%

Water & Conservation

Transportation

Waste & Pollution

Water
How can we incentivize behavior?

- **Payments or rewards** for adopters
  - *Financial*: rebates, block rates, time-of use rates, loans & grants
  - *Convenience*: time-savings, preferential treatment, stress-free

- **Fees or sanctions** for non-adopters
  - *Financial*: disposal fees, pollution taxes, etc.
  - *Inconvenience*: time-consuming, stressful, inconvenient

- Ensure **close pairing** of incentive & behavior

- **Beware**: problems if incentives removed
  - Incentives introduce *extrinsic* motivation.
    If removed, people may not have *intrinsic* motive to continue!
Provide Incentives & Disincentives

BYOB Rebate

Traffic Calming

Block Rates