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## Simple Techniques for Behavior Change

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# Simple Techniques for Behavior Change

Lisa Pennisi

UNL

School of Natural Resources

- People just need to know the facts
- People just need to be aware of the issues & consequences
- People just need to see the \$\$
- Attitudes lead to behavior

**Myths**

# Save Energy, Save Money.

The choice is yours.  
Save energy and money by:

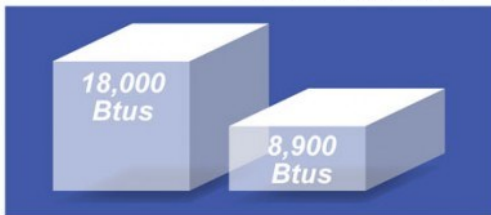
- Using compact fluorescent bulbs. They use less electricity and last 6-10 times longer than standard incandescent bulbs.
- Setting your thermostat to 68 degrees or lower this winter. Every degree below 68 degrees can save four percent on your heating bills.
- Caulking around windows and weatherstripping around doors to keep warm air in and cold air out.
- Replacing your heating air filters every 30-90 days.



# Seven amazing facts about energy efficiency



... that **energy efficient investments** have cut United States energy consumption in half from 1970 to 2008 — from **18,000 Btus** to about **8,900 Btus** (as measured per dollar of economic output). In one year alone such investments are estimated to have generated approximately 1.7 quads of energy savings.



... that U.S. **electric power sector efficiency improvements** could save **7 to 11%** in reduced power needs — like increasing the ratio of advanced meters (which has now reached 4.7% vs. less than 1% in 2006).



... that if Americans **increased their use of public transit** to the same rate as Europeans — for roughly 10% of their daily travel needs — the U.S. could reduce dependence on imported oil by more than **40%**.



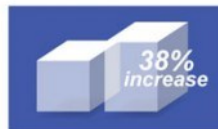
... that U.S. energy consumption could be cut **11%** by 2020 through **building efficiency measures** like more efficient lighting, water heating, and appliances. Medium-sized retail buildings could save as much as 50%.



... that sales of Energy Star-qualified **compact fluorescent lights** (CFLs) nearly doubled last year. 290 million CFLs (which use approximately **75% less energy**) were sold in 2007 and account for over 20% of the U.S. market.



... that registrations of **new hybrid vehicles** rose **38%** in 2007, and should become 5.3% of all car sales by 2012. If the U.S. switched to hybrid and all electric vehicles, it could cut gasoline use in half by 2035.

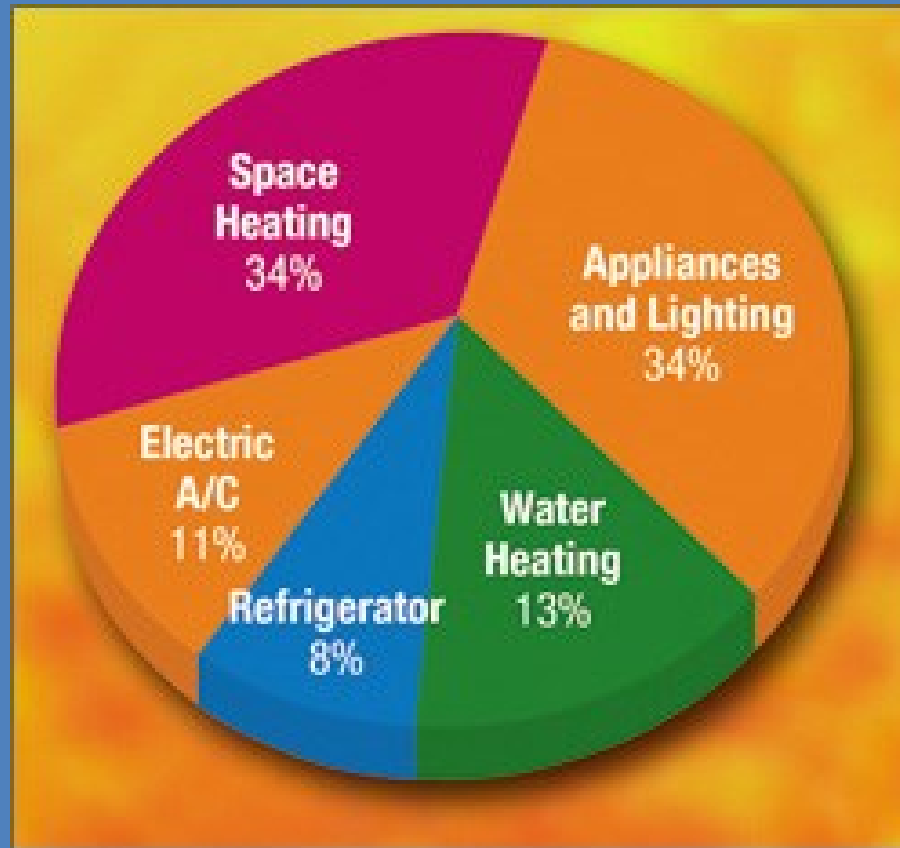


... that global sales of **fuel cells** rose **10%** last year, and nine million tons of hydrogen were consumed in the U.S. ... GM plans to have 1,000 hydrogen fuel cell vehicles on the road in California by 2014.





# 1800sf home w/ 4 people



<http://www1.eere.energy.gov/consumer/tips/appliances.html>

# Does knowledge lead to behavior?

- Knowledge correlates with behavior

True

- Education increases knowledge

True

- Increasing knowledge leads to behavior change

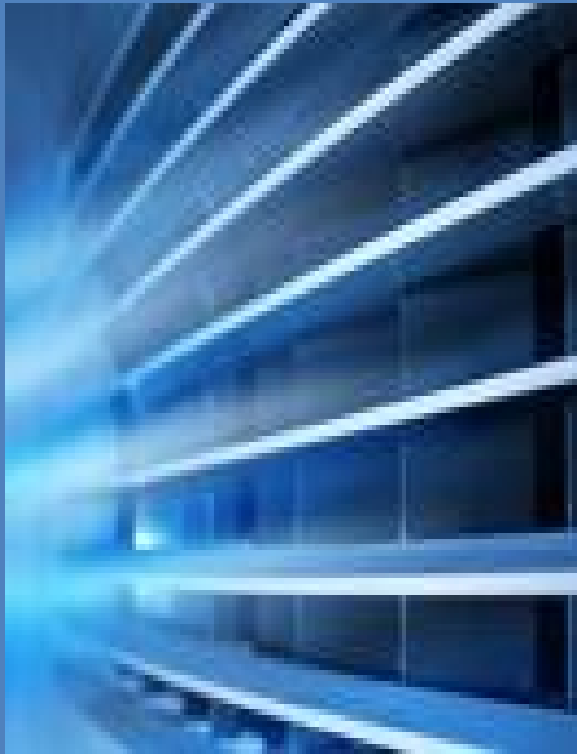
False



# What motivates behavior?

- Knowledge is not a motivator of behavior.
- Lack of knowledge can be a barrier.
- Educational interventions can be effective when...
  1. Already motivated, but have no knowledge
  2. Have knowledge, but it is incorrect
  3. Do not have the right kind of knowledge
    - **Procedural knowledge**

# Electric Air Conditioning – 11%



Run as warm as comfortable—  
78°F and higher when away.

Use fans to circulate air.

Close drapes or blinds on  
sunny windows.

Mueller, L. (2012). Tips to taper home energy costs. Utah State University Extension.

# Awareness Campaigns

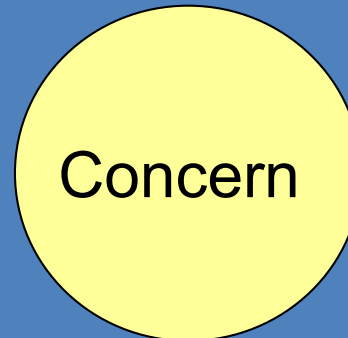
Serious -  
incidence rates



“Only 35% of plastic water bottles are recycled”

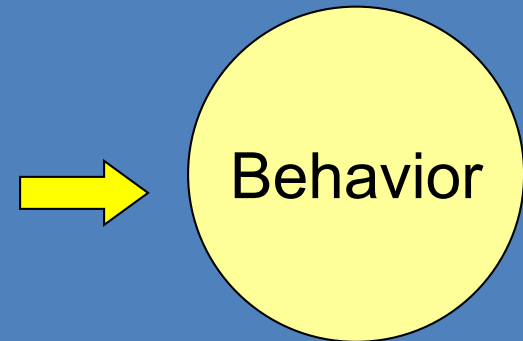
“Mass transit usage is down 48% this year”

Alarm



“It’s important to recycle my bottles or get reusable.”

“Too many people are driving their cars to work”



“I will recycle my bottles”

“I’m going to take the bus”

- Awareness campaigns can produce the opposite of goal
  - they use norms describing undesired behavior
- boomerang effects
  - can cause the opposite effect as some conform with perceived social norms

Fishbein, M., Hall-Jamieson, K., Zimmer, E., von Haefen, I., & Nabi, R. (2002). Avoiding the boomerang: Testing the relative effectiveness of anti-drug public service announcements before a national campaign. *American Journal of Public Health, 92*, 238–245.

**Of all Americans who change their own oil, only 10% of them dispose of their waste oil in the proper manner. Recycle used oil.**

In College Station, an estimated 200,000 gallons of used oil are dumped improperly down the sewers, in empty lots, in holes in the ground, on weeds, and in landfills. All by people who change their own oil. Used oil and oil filters are banned from the landfill and dumping is illegal. Recycling is the only legal method of disposal.

A single quart of oil will foul the taste of 250,000 gallons of water. And as little as one pint of used oil can create an acre-sized slick on surface water. Oil kills the floating organisms in fresh water that feed fish, and it kills aquatic life.

We cannot afford to have our drinking water contaminated. Every one of us has to share the responsibility for transforming used oil from a liability into a major asset.

**Don't Forget:**

*You can make a difference!  
If you change your own oil,  
don't dump it. Recycle it!*

**You  
can make a  
difference!  
If you change  
your own oil,  
don't dump  
it.**

**Recycle it!**

**For more information contact:**

City of College Station  
Public Works Department  
2613 Texas Avenue  
College Station, Texas 77842  
(979) 764-3690



**Don't  
Dump  
It.**



**Recycle Used Oil  
and  
Oil Filters.**

*Give Your Dirty Oil and  
Oil Filter A Fresh Start!*

Let's stop kidding ourselves  
about childhood drinking.

1 in 4

eighth graders has been drunk\*

The Leadership to Keep Children Alcohol Free—spearheaded by more than 30 Governors' spouses—is mobilizing a national effort to prevent drinking by 9- to 15-year-olds.

Find out what you can do to stop childhood drinking before it starts. Visit [www.alcoholfreechildren.org](http://www.alcoholfreechildren.org)

\*Data from The Monitoring the Future Study (2001) found that 23.4% of eighth graders have been drunk.



The problem is WE are the evaluator of potential success based on what works for us.

But **we are not our audience.**

We cannot assume.

Not about knowledge. Not about values.

We must ask the audience and we must appeal to their needs.

What makes an effective message?

What are the Do's?





# Behavior Change Strategies

- Appeal to identity
- Likeable source
- Reciprocity, Scarcity
- Be careful of incentives
- Commitment
- Prompts
- Modeling – social proof, norms
- Feedback
- Involving narrative

# Emotional Involvement

## Unplug or the Polar Bear Gets It!



Loeb, L. & Siccardo, G. (2010). Emotionally Engaging Students to Change Behaviors and Conserve Resources: Unplug or the Polar Bear Gets it! *The International Journal of Environmental, Cultural, Economic and Social Sustainability*, [Volume 6](#), [Issue 2](#), pp.19-34.

# Emotional Ties to Nature



# Importance of commitment and consistency

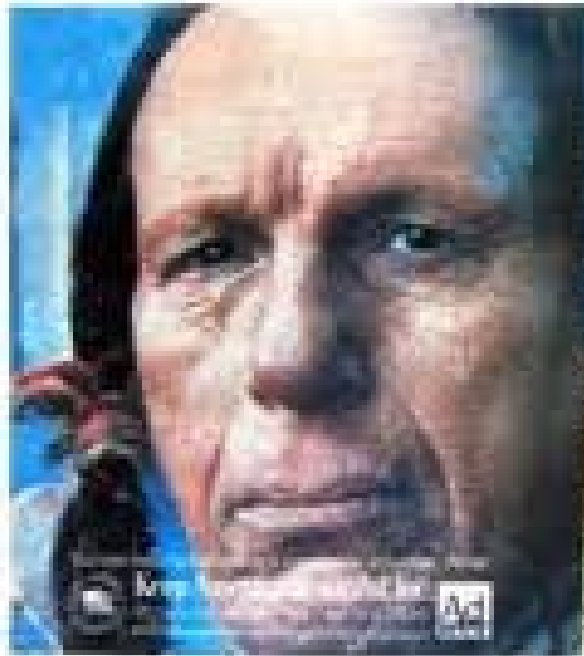
- Public commitment- bumper sticker, t-shirt, magnet
  - Enhances involvement
  - Enhances commitment
  - Provides norms



# Norms

**Social norms**—common, accepted behaviors such as saying “God Bless you”

- Create conformity
- Cultural, formed through socializing
- Powerfully influence behavior
- Have the most impact in novel situations



**IN THE FIGHT  
AGAINST LITTER  
AND POLLUTION,  
WE STILL HAVE  
SO FAR TO GO.**

*People start pollution.  
People stop people.*



# Communicating visual social norms





# Using norms to create change

# Using Norms



# Report Highway Littering Online

LITTERBU

LitterBUtt.COM

Join thousands of others clean up our roads and environment! Report license plates of motorists throwing litter from their cars!

Most people **don't**  
drop litter



Do us all a favour -  
**put your litter in the bin**  
WE WILL prosecute if we have to



[www.tameside.gov.uk/mostpeople](http://www.tameside.gov.uk/mostpeople)



**Most people**  
put their butts in the bin



We'll **prosecute** people who don't.  
Most people would expect us to.  
No ifs or buts (as it were).



[www.tameside.gov.uk/mostpeople](http://www.tameside.gov.uk/mostpeople)

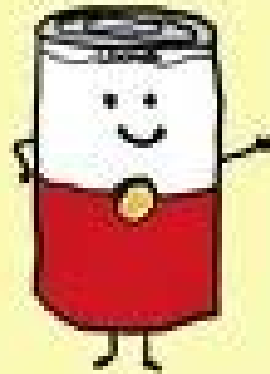


# Other Techniques/Tips:



# Efficacy

© 2009 Lisa Staud  
Pseudodiles 2009



I got it,  
no problem!

Can do attitude

# Compare these statements

- Aluminum dumped into our landfills today will remain there for over 200 years.
- Recycling a single aluminum can saves enough energy to power your television for three hours or to run a 100-watt light bulb for almost four hours. Imagine how much energy you alone could save if you recycled every aluminum can you used in a year!



## Green Initiative

# BE ENERGY EFFICIENT

Since 2007, the Exchange has decreased its annual energy consumption by 5.5%. This reduction in energy use is equivalent to:

- Saving **284 acres** of forest land
- Taking **5,621 vehicles** off the road - freeing the air of carbon dioxide
- Reducing oil consumption by **1,210 gallons**
- Reducing electricity consumption that **3,479 homes** would use





# Creating a Culture of Change

- Individual Role Models
- Emotional ties
- Culture
- Norms
- Empowerment
- Collective identity

Schelly, C. Cross, J., Franzen, W., Hall, P., Reeve, S. (2011). Reducing energy consumption and creating a conservation culture in organizations: A case study of one school district. *Environment & behavior*, 43, 3, 316-343.

# Some Current Projects

- Campus Recycling and Composting
- Backpacks for Adventures
- Replacing Trees – decisions and emotions

**Thank You!**