

# Tools Tested for Outdoor Recreation Environmental Education & Stewardship

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KAB is going social at  
National Conference!  
Be part of the conference  
conversation and  
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# Helping Us Help Your Next Project

**April Buther Wennerstrom, Stacey Rice, Grace Keegan Massinello:**

**Keep America Beautiful**

Ben Lawhon: Leave No Trace International

Jen Randolph: Girl Scouts of Southern Illinois

Dan King, Jeremy Culpepper, Brian Joseph: Camp Ondessonk

Camps Ondessonk & Cedar Point, Crab Orchard Natl. Wildlife Ref.

Kelsey Ernst and Dusty Copple: research assistants

# In The Room Today

- You, but who *are* you?
- Logan Park – Logan.Park@siu.edu
- Laura Baird – Laura.E.Baird@siu.edu



# America's resources

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www.JJ.AM

[Some of] America's people

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# Resources and People Interact



Sometimes positively!

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...And Sometimes:





E & M - 9-26-07

1-10-07

Billie  
& Debbie  
1-7-07

DANNY  
& VIDA  
9/10-09

SHAM & ROSEY  
10-29-07

CURTIS

Jeremy  
& Nicole

J + J

ALBERT & ANITA

ALBERT

PHIL

PHIL & TAMARA

ALBERT & ANITA

ALBERT & ANITA

PHIL  
ALBERT & ANITA  
ALBERT & ANITA

# Individuals Sometimes “Leave A Trace”



# Stories, Not Statistics

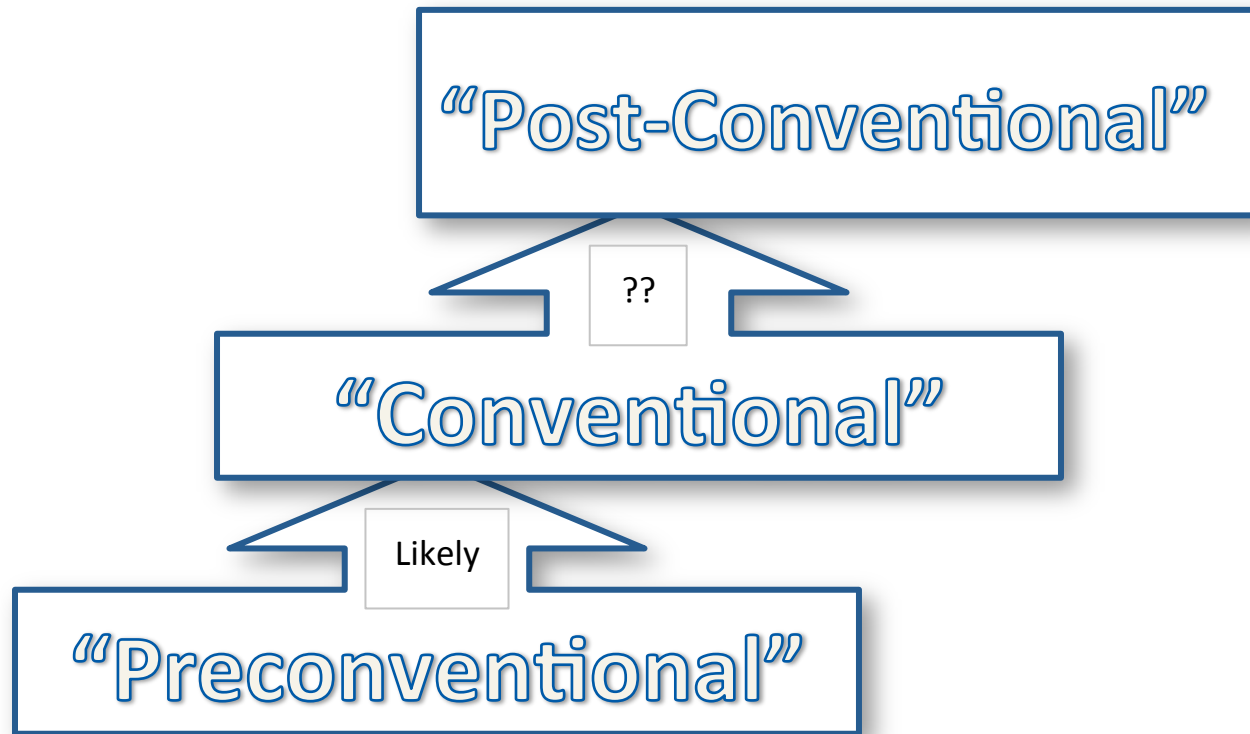
- But what about *crazy-sized* stats?
- $U.S.D.O.I = \frac{450,000,000 \text{ visits}}{1 \text{ year}}$
- Billions of visits annually

# Your Village Is Distinctive

- Federal, international-scale research
- *Every* application is local
- Skip trial-and-error
- Fit these tools to your needs

- Stages of Moral Development
  - (Kohlberg, 1971; Murphy and Gilligan, 1977)

- Stages of Moral Development



# Conventional: Perceived Peer Opinion



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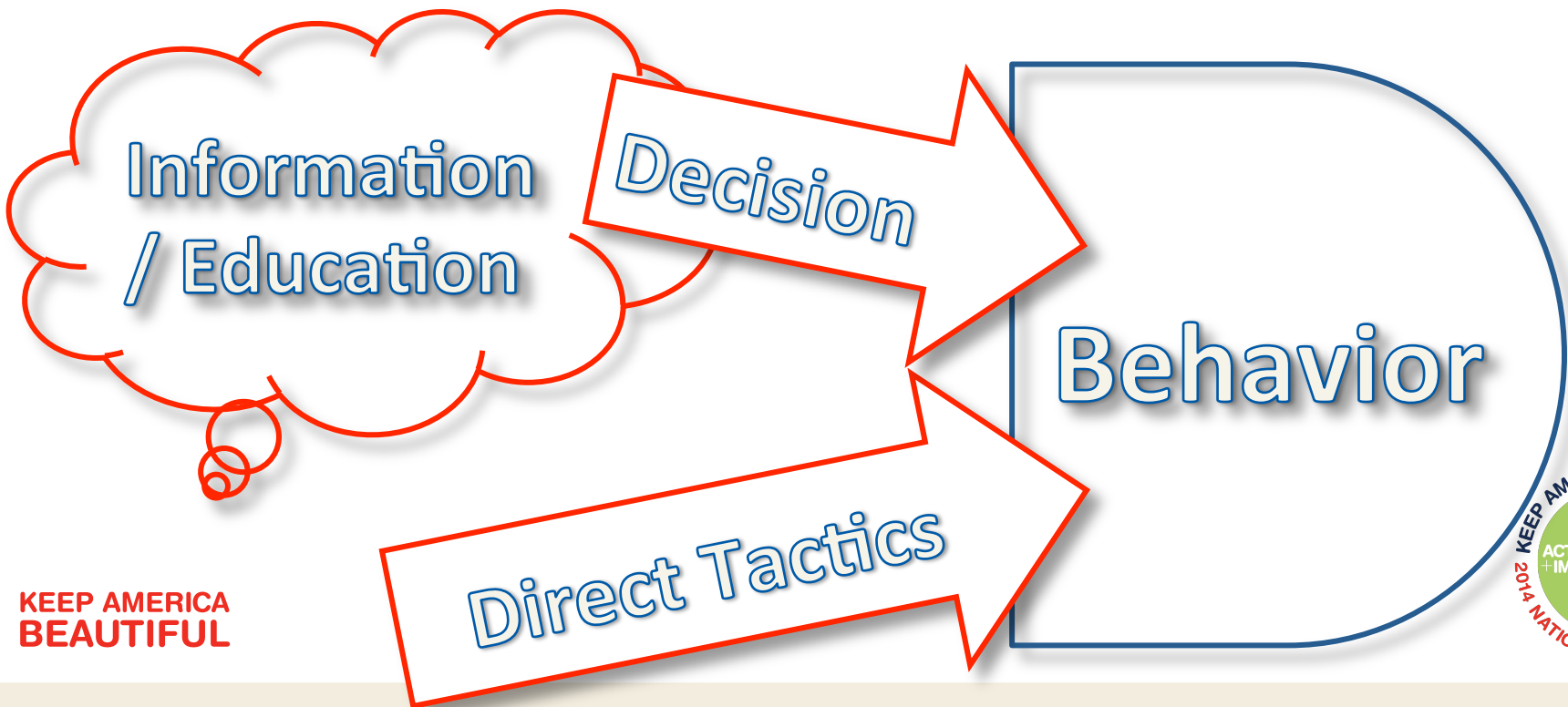
# Useful Work By Smart People

- Stages of Moral Development
- Direct vs. indirect behavior influencers
  - (Gramann et al. 1992; Manning 1999)



# Useful Work By Smart People

- Stages of Moral Development
- Direct vs. indirect behavior influencers



# Site Management



# Site Management



# Useful Work By Smart People

- Stages of Moral Development
- Direct vs. indirect behavior influencers
- **Elaboration Likelihood Model of Persuasion**
  - (Petty & Cacioppo, 1981)

# Useful Work By Smart People

- Stages of Moral Development
- Direct vs. indirect behavior influencers
- Elaboration Likelihood Model of Persuasion



# Central vs. Peripheral Persuasion Route



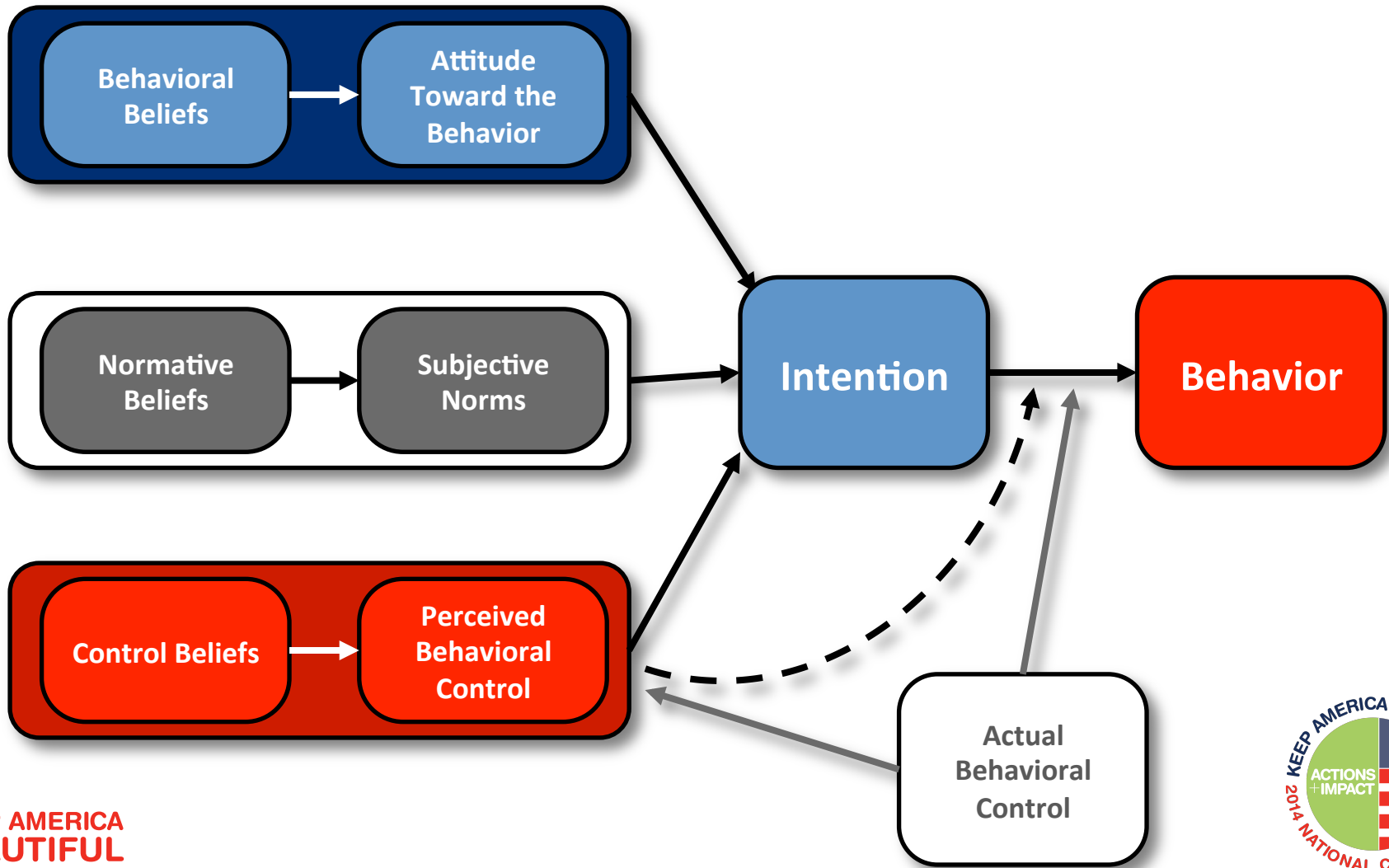
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# Useful Work By Smart People

- Stages of Moral Development
- Direct vs. indirect behavior influencers
- Elaboration Likelihood Model of Persuasion
- **Theory of Planned Behavior**
  - (Ajzen, 2011; 1991)

# How You Plan Behavior





# Useful Work By Smart People

- Stages of Moral Development
- Direct vs. indirect behavior influencers
- Elaboration Likelihood Model of Persuasion
- Theory of Planned Behavior
- Match depreciative behavior motivation to management tactics
  - (Hendee, 1990; Roggenbuck, 1992)

# Match Your Planned Response With Reason

Unavoidable

Careless

Uninformed

Low

Med

High

Unskilled

# Laura Baird: Application



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# Background

- Marine Science → Forestry
- Fourfold interests of children (Dewey, 1899):
  - Conversation
  - Finding out things
  - Making things
  - Artistic expression
- Field trips and summer camps
- Benefits of pre-visit preparation

# Key Questions

How do we best improve pro-resource behaviors and attitudes in kids?

How do we do this while keeping our project:

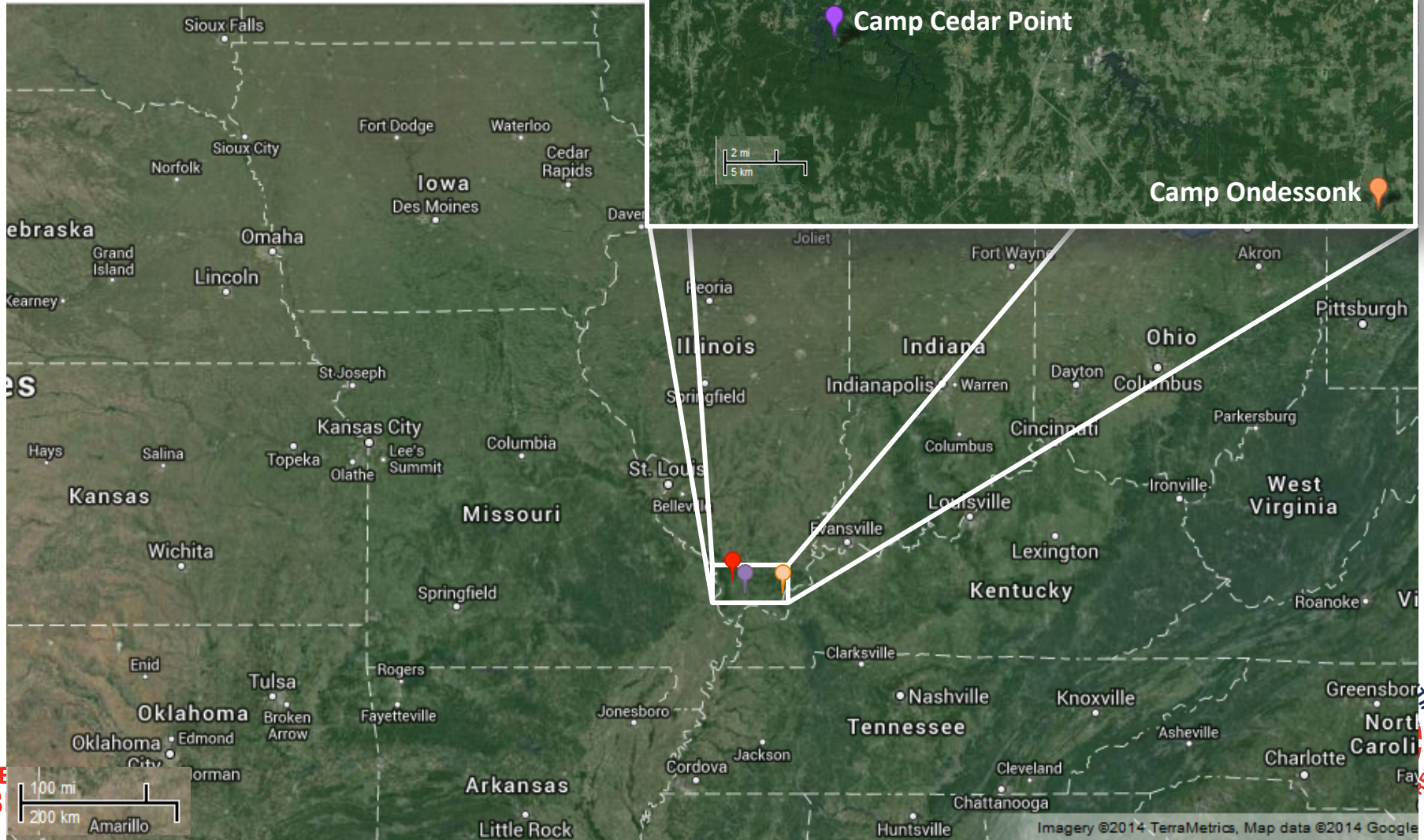
- low-cost?
- easily replicable?
- easily administered?

# What We Did

## Phase 1 (Fall '12 - Spring '13):

- Create program content to NAAEE standards
- Form partnerships
- Pilot materials for mechanics and flow
- Modify materials

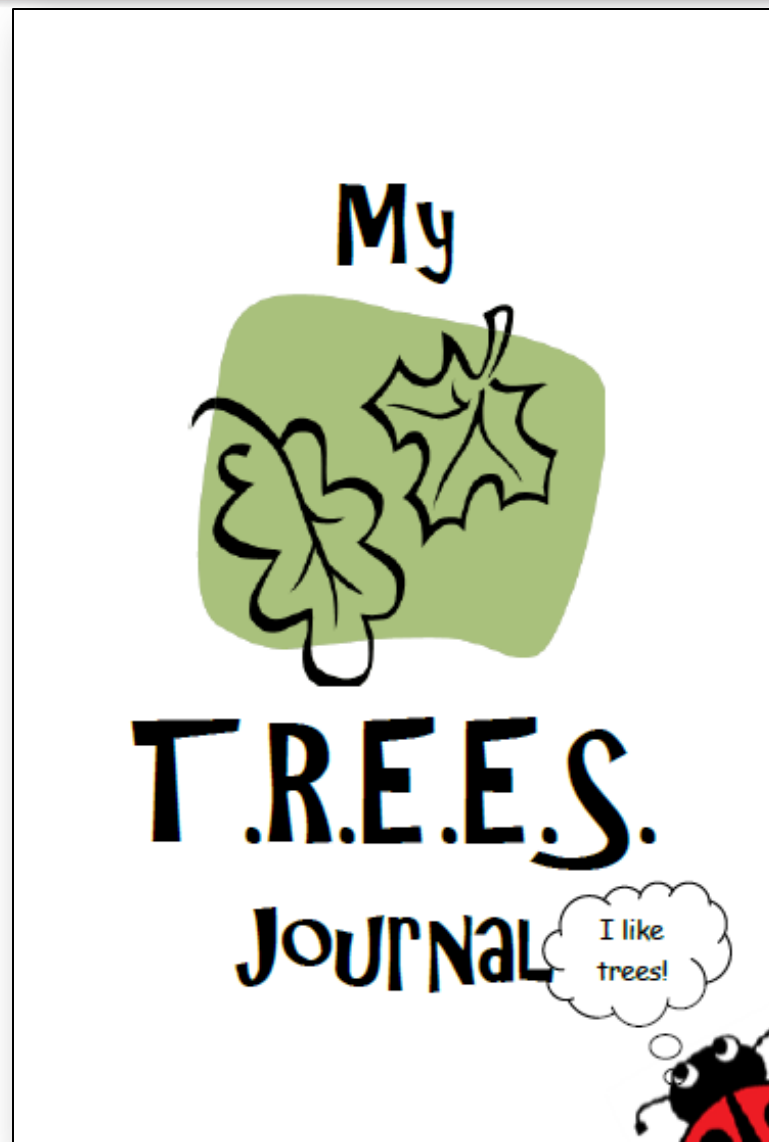
# What We Did: Study Sites



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# What We Did: The Journal



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## What We Did: The Bracelet

Personalized bracelets to wear on the hike:

- Foam stickers vs. permanent markers
- Kits to assemble vs. making them in-session

# What We Did: The Games

Campers played three interactive games:

- Catch a Running Squirrel (Don't chase wildlife)
- Follow that Waterdrop (Don't litter/pollute waterways)
- Stay on the Trail (Stay on the Trail)

# What We Did

Phase 1: Create, pilot, and modify

Phase 2 (Summer 2013):

- Small-group critical thinking workshops
- Pre- and post-program evaluation
- Observe camper behavior on hikes

# What We Did

Included in the study:

- 119 Girl Scout campers, 7-10 years old
- 106 Coed summer campers, 8-10 years old

Sequence during camps:

- First full day: Pre-program evaluation, activity completion, post-program evaluation
- Second or third full day: behavior observation
- Last day of camp: Followup program evaluation

# What We Did

Phase 1: Create, pilot, and modify

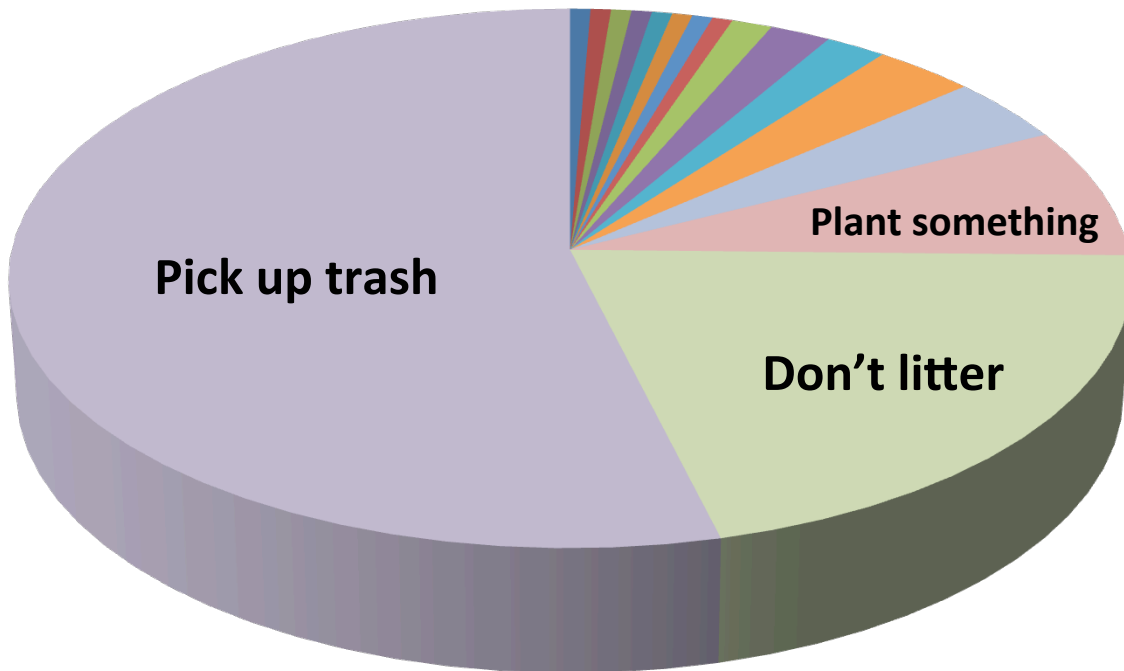
Phase 2: Implement and evaluate

Phase 3 (in progress):

- Data analysis
- Further revision
- Scaling up of program materials into “kits”
- Dissemination of findings

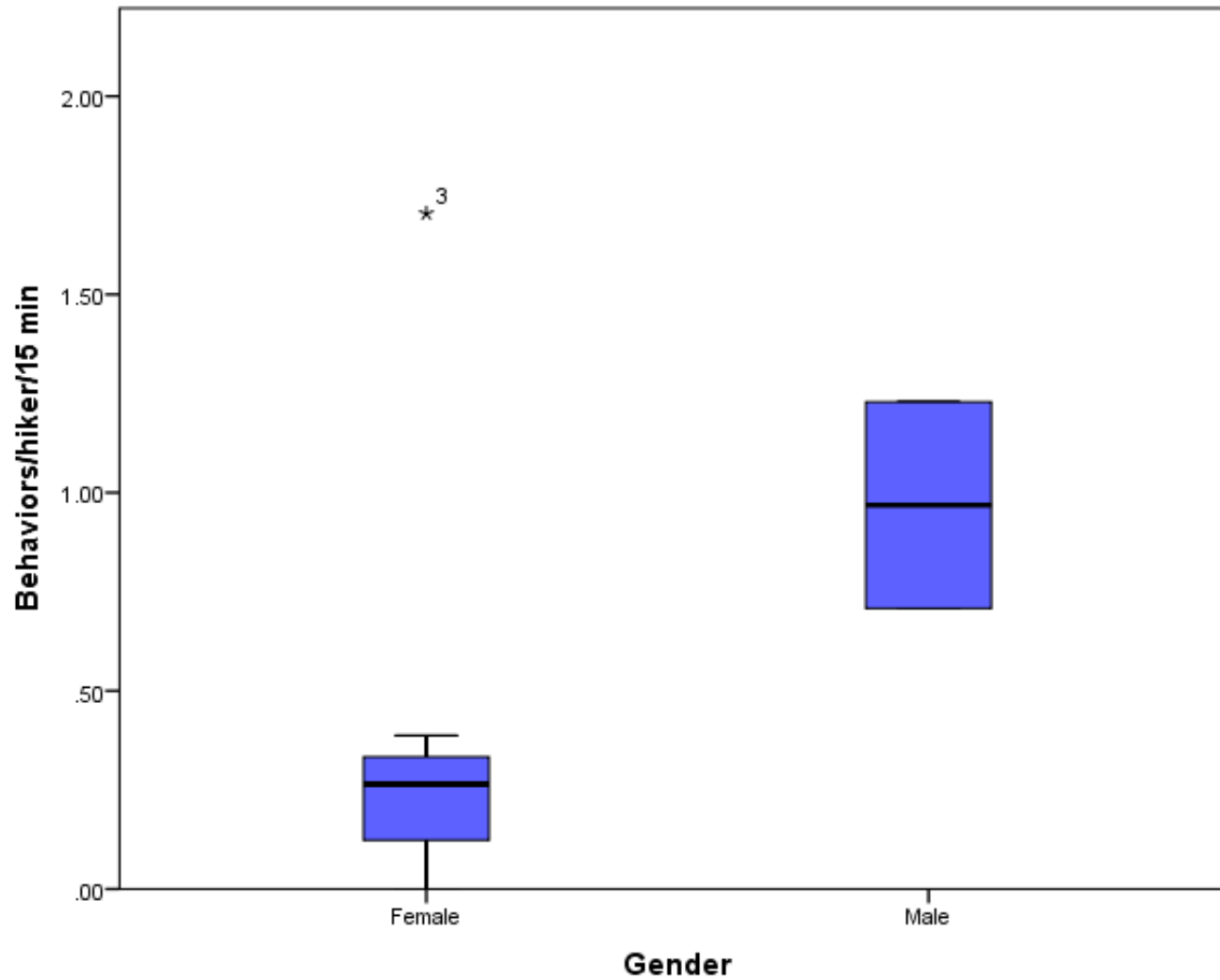
# What We're Finding

## Something I can do to keep the outside nice



- Clean the beer bottles up in my yard
- Don't trash it
- Leave it alone
- No ripping bark off trees
- Protect the nature
- Smell flowers
- Take only pictures leave only footprints
- To always love nature
- Don't smoke
- Help wildlife

# What We're Finding



# Sample Responses: "What are three things you can do to here in Illinois keep the ocean clean?"

Be not a litterer.

- 1) make a charity.
- 2) Pick up trash.
- 3) Pick up dogs waste.

Reuse  
Help Hurt animals  
Kill straggler  
figs

Pick Dog Crap

Don't bring chemicals

don't <sup>throw</sup> trash in river

Throw That  
Trash away



# Sample Responses: Staying on the Trail

Why do parks have trails?

So you Don't kil pants.

What happens when you walk off the trail?

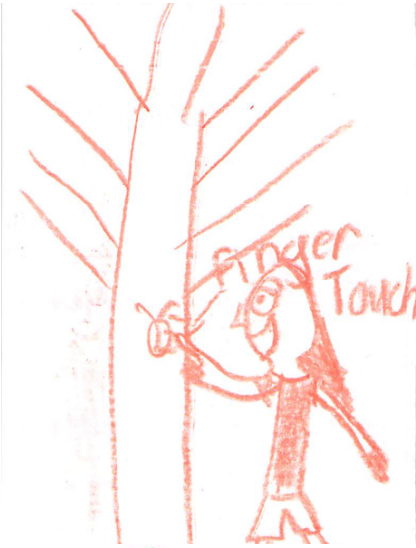
You kil pants

Why might you go off the trail? Can you think of something you can do instead?

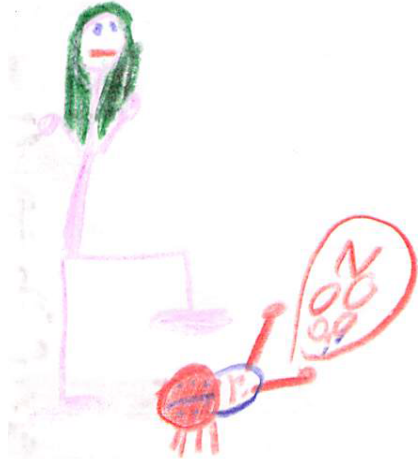
| Reason 1:                                | What you could do instead:                    |
|--|---|
| To see a prety view                      | Don't see it                                  |
| Reason 2:                                | What you could do instead:                    |
| You Drop Some thing                      | USE A stick.                                  |
| Reason 3:                                | What you could do instead:                    |
| IF there was a fire infrot a behind you. | <del>You</del> You have to get off the trail. |

| Reason 1:              | What you could do instead: |
|------------------------|----------------------------|
| because of a fire      | go back                    |
| Reason 2:              | What you could do instead: |
| because of a tree fell | climb over it              |
| Reason 3:              | What you could do instead: |
| because of a slower    | enjoy it                   |
| TO pee on a tree       | wait for a bathroom        |

# Sample Responses: "Draw a picture of someone doing something to HURT Lily's habitat:"



Draw a picture of someone doing something to hurt Lily's habitat:



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# Sample Responses: "Draw a picture of someone doing something to HELP Lily's habitat."



## Sample Responses: Acrostic Poems

Panda  
Appetit  
Nice  
Delicet  
Adorable

Turtles  
Usally  
Rome around  
Trees  
Like  
Elephants

Monkey  
On a tree  
Nuttg nonsense  
Kicking there  
Exciting  
Yell

Relly sneky.  
d Mazing.  
Carazy.  
Outside.  
Outdoors.  
Night.

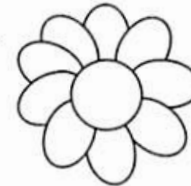
Don't look ~~at~~ <sup>when</sup> crossing  
Extrodinary Street  
Excellent hiders  
Run fast

cute  
heavy  
eats animals  
exciting  
travel fast  
a Wesome  
hide

# Sample responses we couldn't decipher for the life of us

What is your favorite wild animal?

Thedo



What is something you can do to keep  
the outside nice?

Sorell

Something to do in Illinois to help the ocean:

Antospelkells

# What We're Finding

- How well each activity worked

# What We're Finding

- How well each activity worked
- Effects of combining them

# What We're Finding

- Is the effort worth it?



# What We're Finding

- Is the effort worth it?
- Does it enhance the experience for kids?

# What We're Finding

- Is the effort worth it?
- Does it enhance the experience for kids?
- Where do we go from here?

# Questions and Discussion

## Special Thanks:

- April Buther Wennerstrom, Stacey Rice, Grace Keegan Massinello:  
Keep America Beautiful
- Ben Lawhon: Leave No Trace International
- Jen Randolph: Girl Scouts of Southern Illinois
- Dan King, Jeremy Culpepper, Brian Joseph: Camp Ondessonk
- Camp Ondessonk and Camp Cedar Point staff
- Kelsey Ernst and Dusty Cople, research assistants

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Theories

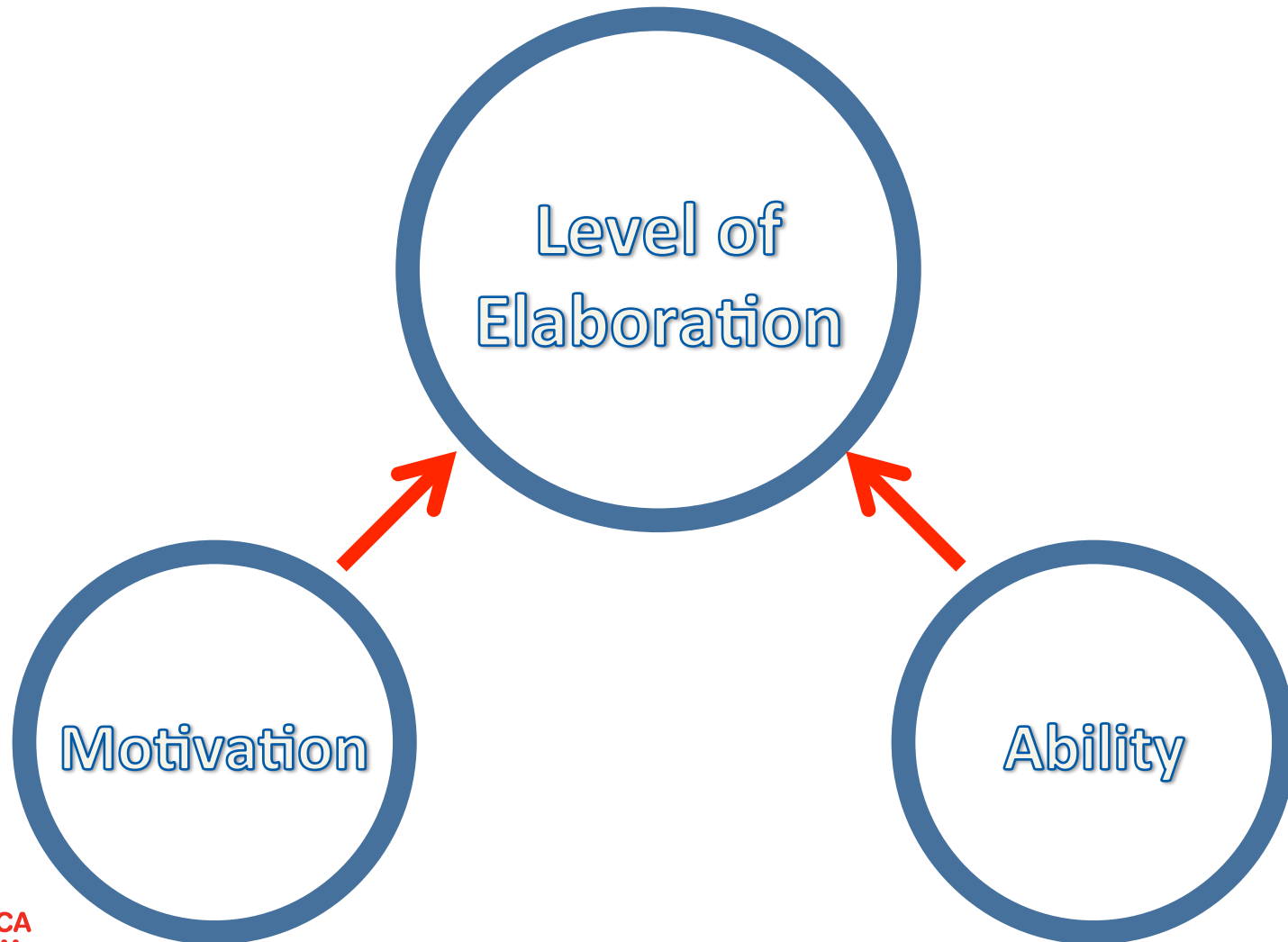


Be not a litterer.



# Supplemental Slides: We Who Really *Own* “Geek” & “Nerd”

# Useful Work By Smart People



# Message Phrasing Approach

## Prescriptive

- Positive phrasing
- Acceptable
- Less effective

## Proscriptive

- Negative phrasing
- Less preferable
- More effective

# Message Structuring

## Descriptive

- Explain what's happening
- Preferred by visitors
- Less effective

## Injunctive

- Issue command
- Less preferable to visitors
- More effective
- (Winter et al. 2000)

# Site Management



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# The Data

