

This presentation premiered at WaterSmart Innovations

watersmartinnovations.com



Really, what factors promote behaviors to conserve water?

Julie Gillins

Presentation Overview

- District Background
- Study background
- Study Results
- Application

WASHINGTON COUNTY
WATER CONSERVANCY DISTRICT



Area's Overview



Population

155.6K

2015



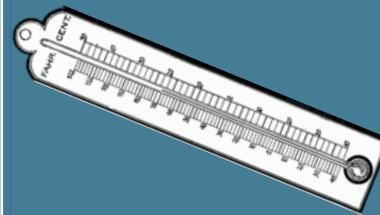
Weather

300 Sunny Day



Precipitation

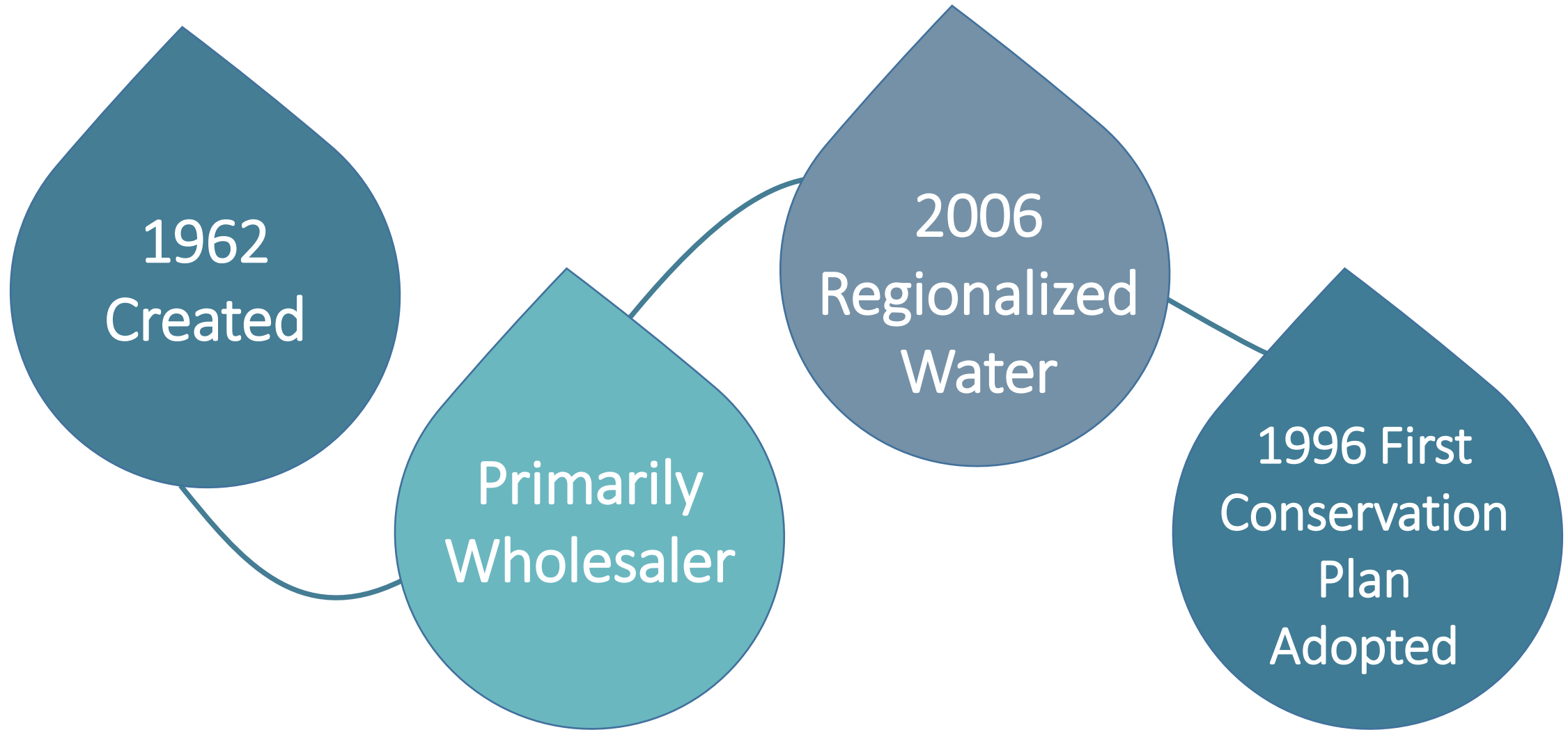
8" Rain



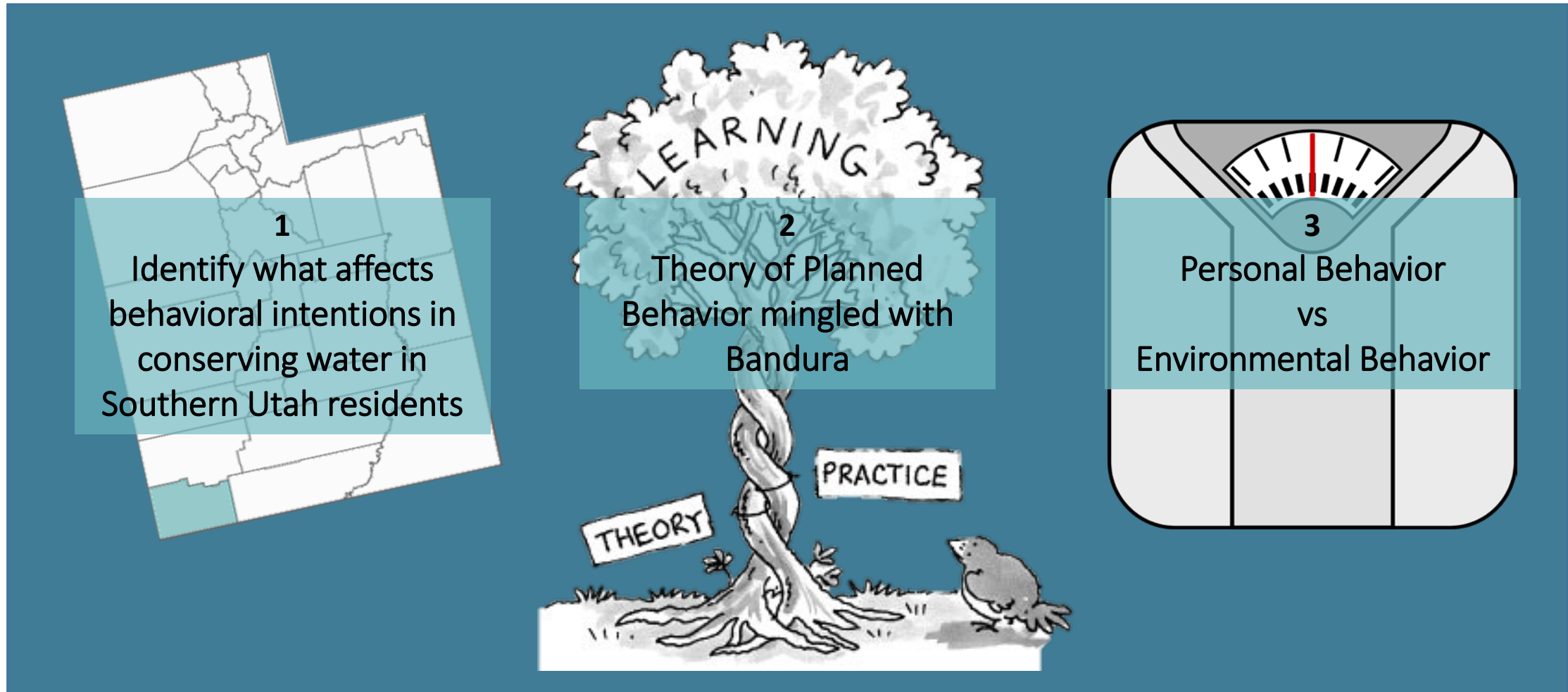
Temperatures

31 to 102 F

Agency & Conservation Efforts



Overview of Study



Environmental Behaviors

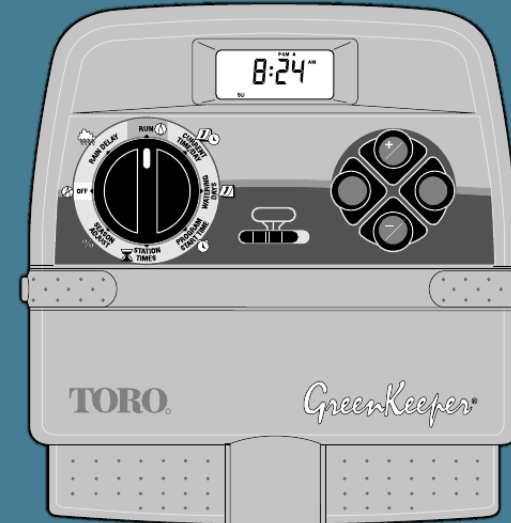
- Difficult to change
- Benefits not seen immediate
 - motivation waned
- Less predictable and difficult to maintain
- Few conserve to preserve
- Social norms help engage



Why is this important?



— Regulations hard sell and still need behavioral compliance



— Technologies still require some behavioral engagement

Understanding...

- Bring together water-efficient technologies with conservation measures and align with water efficient behavior for long term results in water use reduction
- Awareness does not always lead to action.
- Find the correlation between knowledge and variables that significantly influence action.
- Provide components for strategic messaging which focuses on the influencing factor.



5 Variables Measured

1	2	3	4	5
ATTITUDE on water	Perceptions of ABILITY to conserve	Belief in COMMUNITY'S ability to conserve	SOCIAL belief of conserving water	Behavioral Intentions
<i>Independent</i>	<i>Independent</i>	<i>Independent</i>	<i>Independent</i>	<i>Dependent</i>

Self efficacy

- Personal belief of ability to perform task



Collective efficacy

- Must feel their sacrifice is met along with the community's ability of change
- Must see the community working together



Social Normative

- Behaviors adopted when perceived others participating
- Behavior valued
- Acceptable behaviors



Research Questions

1

Which factor best predicts behavioral intention?

2

The role does each factor play in creating a message?

Hypotheses

H1

An optimistic
ATTITUDE
about water
conservation
will positively
affect
behavioral
intention to
conserve water.

H2

A belief that
**SOCIAL
NORMATIVE**
uses water
efficiently will
positively affect
behavior to
conserve water.

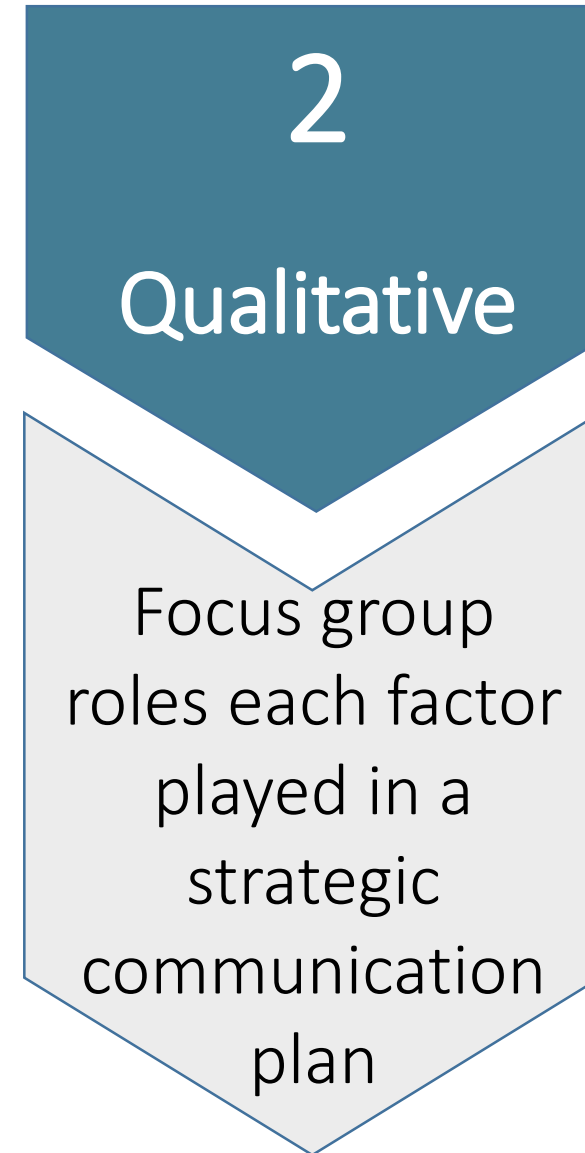
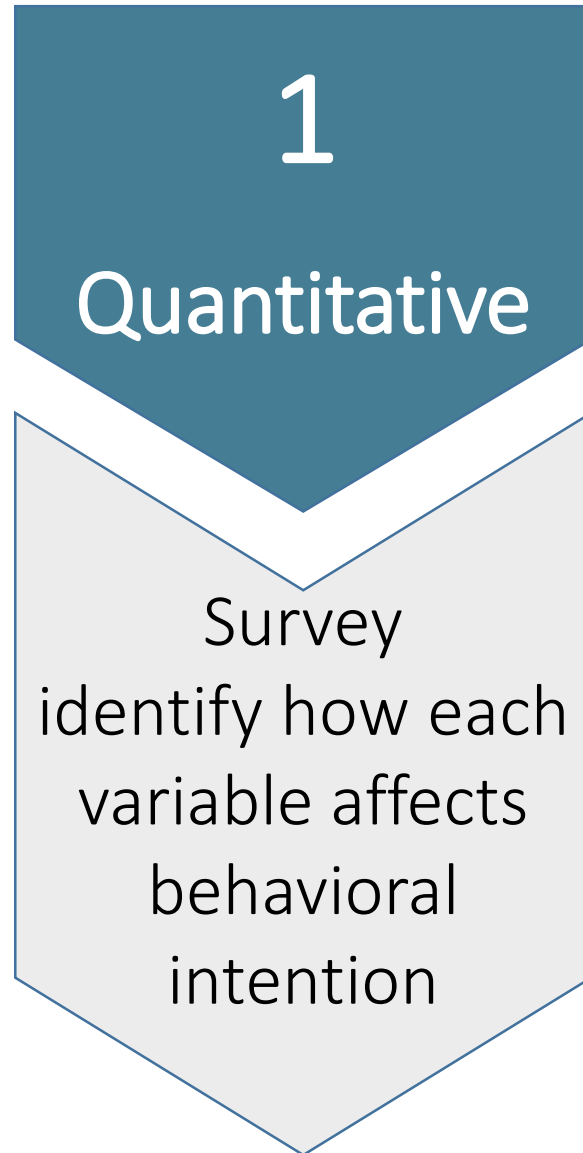
H3

**SELF
EFFICACY**
about water
conserving
behaviors will
positively affect
behavioral
intent to
conserve water.

H4

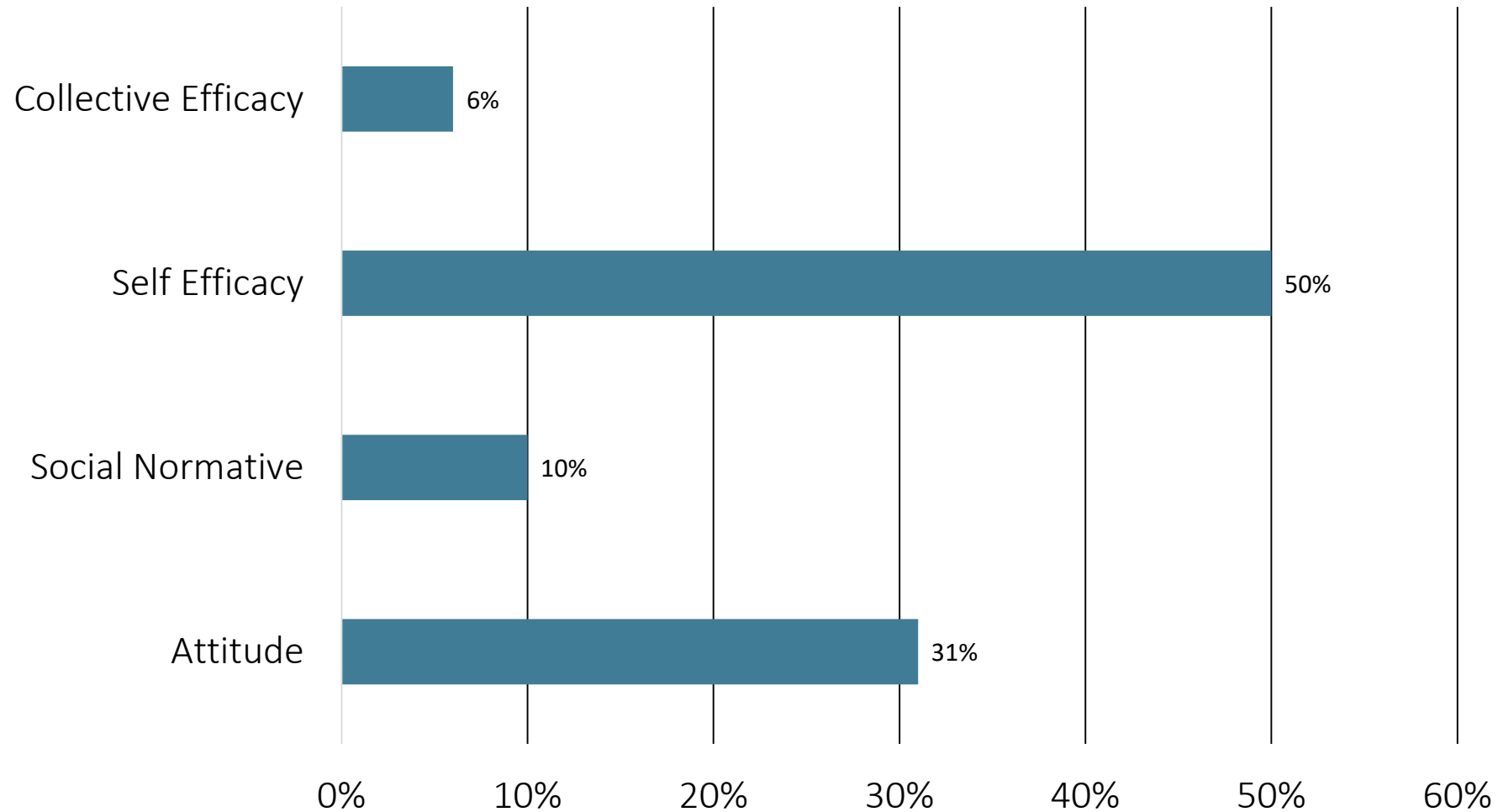
**COLLECTIVE
EFFICACY**
about water
conservation
will positively
affect
behavioral
intent to
conservation.

Approach



Drum roll, please...and the Factor is...

Percentage of Behavioral Intentions Influenced by the following Factor



Stepwise regression

Model	R	Adjusted R Square	Beta	t	<i>P</i>
Self-efficacy	.501	.249	.446	9.91	.000
Attitude	.266	.262	.134	2.97	.003

- The model compared all variables and found these two as significantly predictable when interacting with each other.

Forming Self-efficacy

Experience

Completed and practiced task by self

Observation

Vicariously participate in task

Persuasion

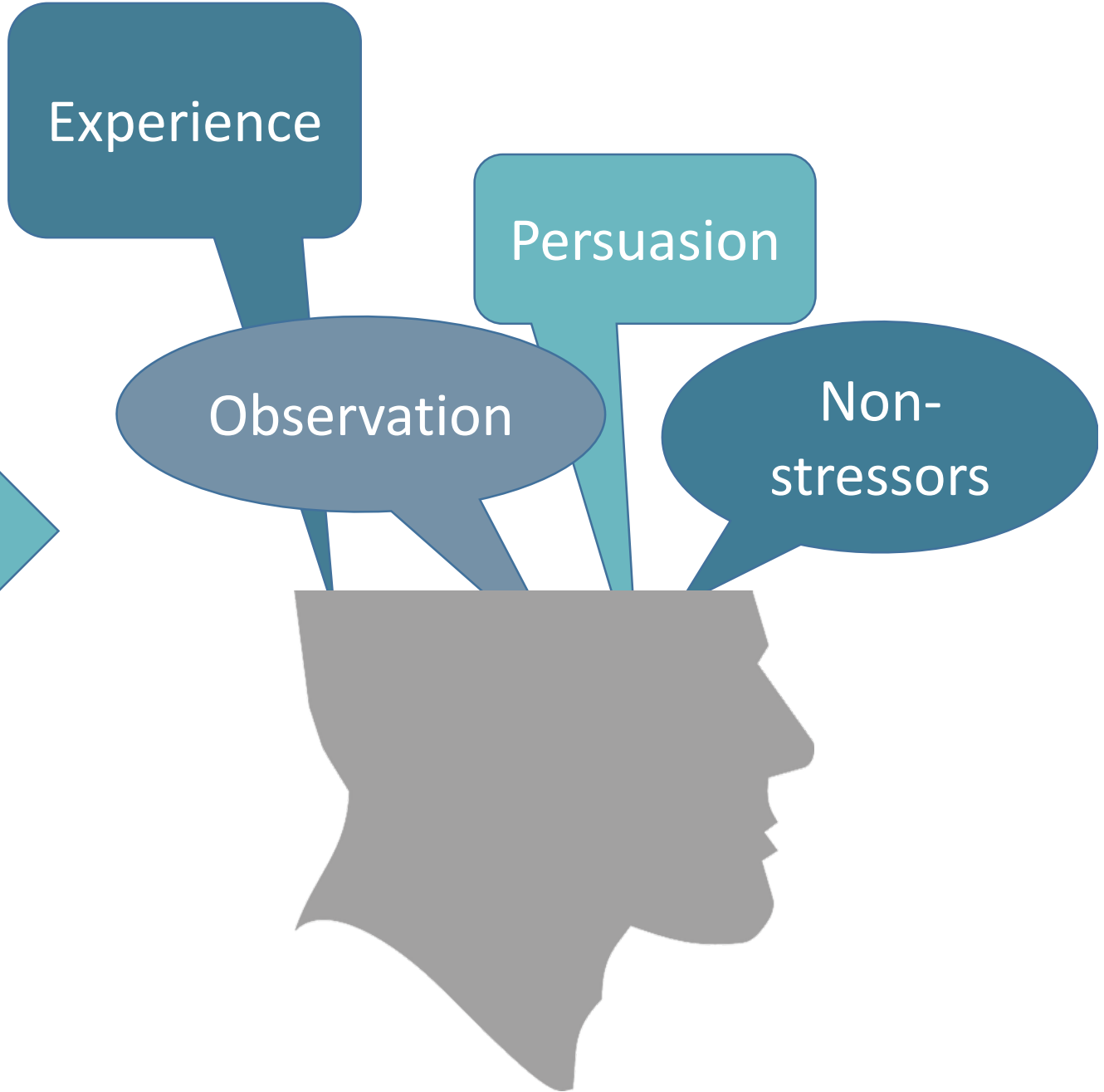
Persuasion by a well-respected person to perform task

Non-stress

Not perceived as a stressful task



Bandura



Develop strategic messages with:

1

Specific
details of task

3

Persuasion of
someone
well-respected

2

Visually show
desired task

4

Eliminate stressors
by showing ease
of task

Summary

- Self efficacy plays significantly in predicting behavioral intentions to use water efficiently.
- Forming self-efficacy
 - Experience
 - Observation
 - Persuasion by a respected individual
 - Non-stressor

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In just **10** minutes

**you could
save...**

10 percent on your water bill

10 thousand gallons of water

10 months of laundry water

Find and fix leaks!