

# KEY TAKEAWAYS & RESOURCES:

## Conceptual Frameworks for Motivating Behavior Change

This document is a summary of takeaways that could be useful to practitioners and researchers interested in this topic, especially as applied to the Seacoast region of New Hampshire. Generated from “Learning Circle #1,” organized by the [Bridging Human Dimensions Project](#). Additional shared project files [are available at this link](#).

### Practitioner Context & Challenges

- ★ **A better understanding of human behavior**, and its relationship to environmental conditions and protection, **is important to inform the work of outreach and engagement practitioners** because environmental protection relies on how humans interact with the environment and each other.
- ★ **What should technical assistance, outreach, engagement practitioners know about social science generally and where can they learn about it?**
- ★ Are there **social science frameworks, theories, and models that are particularly helpful** for understanding environmental mindsets, behaviors, policies, practices, and interactions?
- ★ Are there **local examples** of applying social science frameworks, theories, and models to outreach and engagement projects and project planning?
- ★ Are there **social scientists who are interested in collaborating** with outreach and engagement practitioners **working around the Great Bay?**

### Key Takeaways

- Social sciences that can help inform understanding the relationship between people and the natural environment include psychology, sociology, anthropology, economics, etc.
- Informational resources are available to support technical assistance, outreach, and engagement practitioners in becoming more comfortable with and knowledgeable about social science fundamentals and to collaborate more successfully with social scientists.
- **Shared vocabulary** is a necessary foundation to bridge institutional/professional silos and build a thriving community of research and practice. See [Slides 11-13](#) or the following resources:
  - [NOAA Social Science Basics](#) (NOAA - 35 min) - **The NOAA course** is a good basic social science concepts “crash course” overview.
  - [Social Science in Context - Notes and Foundational Concepts](#) (M. Day - 30 min) - **The supplementary video** fills in some of the context and details that the more general NOAA video does not cover. [Slide 13](#) outlines main points covered in the video.
- Several example theoretical models and frameworks of potential interest to technical assistance, outreach, and engagement practitioners include: **the ADDIE Model, the Stages of Change Model, the Theory of Planned Behavior, Environmental Citizenship Behavior Model, and Community Based Social Marketing** (summarized below and on [Slides 14-15](#)). An important caveat can be found in the adage: “All models are wrong, but some are useful” (George E.P. Box). Each theoretical model or framework has its limitations, but they can provide guidance for outreach, engagement, and technical assistance with a focus on motivating behavior change. Other frameworks can also apply.
  - The **ADDIE** model describes the steps involved in planning, preparing, and carrying out an outreach and engagement project. The steps are Assess Needs, Design, Develop, Implement and Evaluate ([Slide 16](#)). **Social science can be applied to inform any of these stages in order to increase the likelihood that the outreach and engagement effort is effective**, e.g. using social science findings to determine what the existing NEEDS (for information, capacity, resources, etc.) are, or using social science findings to inform the DESIGN, DEVELOPMENT, and

IMPLEMENTATION stage regarding outreach methods that might work best when engaging particular audiences on particular topics. See also - [NOAA training on Planning Effective Projects](#)

- **Stages of Change** (Prochaska) is a psychological model that seeks to describe the stages individuals can go through in contemplating and eventually changing their behavior or habits. It is often applied in the health field but can cross disciplinary boundaries. The model can help practitioners support change by being thoughtful about where someone is at and meeting them there. **Inattention to someone's readiness to change can lead to ineffective interventions.** ([Slide 17](#))
- **Theory of Planned Behavior or TPB** (Ajzen and Fishbein) is a long-standing model that **focuses on behavioral intent and influences on behavioral intent, such as attitudes, values, norms, and perceived behavioral control.** [Graphic of the TPB.](#) A slightly modified version of the TPB was used in a regional project on reducing nutrient losses from lawns. It added "past action" and "information" into the model as additional influences on behavioral intent. The social science team involved in the lawn care project researched each component of the model and developed recommendations for the outreach and engagement practitioners on message content, message framing, and message delivery for practitioners based on the research findings. The team also tested the effect of different message framing approaches during a subsequent pilot project in Bangor, ME. ([Slides 18-19](#)). The augmented TPB model can help practitioners **focus on what component they are trying to influence with new information**, given limited time and resources. See also this example of a [lawn care outreach product that was informed by the social science and agronomic findings.](#)
- **Environmental Citizenship Behavior Model** (Hungerford and Volk) ([Slide 20](#)) is a theoretical framework that attempts to explain and predict how individuals engage in environmentally responsible actions. It describes three stages of environmental citizenship. At each stage, different variables are more or less important. Each level and the most important variables for that level are listed here: **Exposure/Entry-Level** - environmental sensitivity; **Ownership Level** - getting invested and more knowledgeable about the issue. **Sense of Responsibility and Empowerment Level** – knowing the issue and knowing how and having the ability and the intention to act.
- **Community Based Social Marketing** (McKenzie-Mohr) ([Slides 21-22](#)) is social psychology oriented and can inform community-based strategies focused on behavior change. This framework consists of practical steps for practitioners – select behaviors, identify barriers and benefits, develop strategies, pilot test, and implement/evaluate programs. It uses "tools" of CBSM including communication, gaining commitment, removing barriers, incorporating prompts, and identifying incentives for behavior change. It is based on social marketing (from commercial marketing) principles, although there is a lack of shared understanding among academics and professionals. One limitation is that it can be expensive to implement. The lawn care project incorporated elements of CBSM and uses prompts (e.g. measuring tape, rain gauge, bag clip) in related programming in lawn care "kits" to remind people of practices that are likely to reduce or prevent nutrient losses based on agronomic and social science. The prompts directly address known issues and common mistakes in lawn care that were identified through social science research. Project derived lawn care outreach also uses norms framing by reminding people that a safe and healthy environment are important to their family, friends, and neighbors.
- **Models and frameworks can be combined**, e.g. use Stages of Change to prioritize a segment of the population to engage with; use TPB to investigate message content, framing, and delivery; use Community Based Social Marketing tools to inform outreach activities, messages, and products.
- **Terminology clarifications:** *Note – definitions may vary somewhat by discipline*
  - Attitudes - how people feel about things; sentiments (pros and cons) about an object, event, or practice - more specific than values

- Norms - rules (formal - e.g., laws OR informal e.g., holding a door for a person behind you) that govern social relationships and society; perceived expectations for appropriate behavior based on a reference group or experience
- Values - beliefs that motivate people to act in one way or another (e.g., religious identity); also, an idea or principle that tells what is correct or moral
- In the **evaluation of the pilot test of lawn care message framing** in Bangor with the project team, Extension, and Bangor Area Stormwater group revealed some insights. Pilot tested three comparison communities. Although both groups who received messaging changed their intent to fertilize, the **normative-informed messaging was most effective** (i.e. recipients are more likely to do something if they think their neighbors are also doing it.)
- **Normative messaging** is about helping people understand that they are doing the thing everyone else is doing (i.e. they are following the social norms of their group, neighborhood, field, etc.) by taking a certain environmentally supportive action. **Norms can also be dynamic (changing)**. In the case of shifting norms (when most people are not yet doing something) you can point to change toward more people doing X, i.e. Increasing percent of people doing X.
- While there is not one perfect model / framework, many practitioners are drawn to CBSM as it is directly connected to designing outreach in a step-by-step process. Other frameworks don't typically connect so directly to practical steps.
- Another example where using frameworks / models to design a campaign can be seen in energy conservation – consider the impact of a sign at the light switch (a prompt) versus a TV ad about turning out the lights.
- To motivate people who may have very different values and attitudes, start with things that people already agree on (i.e. clean water and need to reduce pollution are generally agreed on). From there, pay attention to the solution you are proposing and how you discuss it (i.e. market-based solutions or social justice solutions; everyone likes to plant trees, no one likes to pay more for gas). In addition, place attachment can be a strong connector (i.e. things we all notice and do). Sense of belonging is also important, people want to belong to something. Rather than telling them just to behave a certain way, invite them to be part of a group that is doing that behavior. Different framing and different messages resonate differently with different people.
- Small behaviors creating motivation to continue to act works for some audiences to connect attitudes and values with behaviors.

### Additional examples, related studies, and resources of potential interest:

- [Social Science in Context - Notes and Foundational Concepts](#) (M. Day - 30 min)
- [NOAA Social Science Basics](#) (NOAA - 35 min)
- [Herington, Matthew J., and Elske Van de Fliert. Positive deviance in theory and practice: A conceptual review. Deviant Behavior 39.5 \(2018\): 664-678.](#)
- See other notes and project resources

### Featured Practitioners and Researchers

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- Chris Ellis, NOAA National Ocean Service Office for Coastal Management
- [Julia Peterson](#), NH Sea Grant and UNH Extension
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**Project Resources, Contacts, and Feedback:** We appreciate your interest in this project and welcome additional questions or ideas for resources that would be useful. In addition, we appreciate hearing feedback on how you may have used this takeaway summary. Please contact [Lindsey.Williams@unh.edu](mailto:Lindsey.Williams@unh.edu).

- A more detailed summary of this Learning Circle discussion [is available at this link](#). Additional shared project files [are available at this link](#).

- Additional takeaway summaries are available on the following topics:
  - Learning Circle 2: [Documenting Public Opinion to Guide Programs & Influence Policy](#)
  - Learning Circle 3: [Understanding and Building Loyalty Among Visitors and Volunteers](#)
  - Learning Circle 4: [Social Science For Communications and Messaging](#)
  - Learning Circle 5: [Drivers of Local Policy Change and the Role of Technical Assistance](#)
- A listing of academic research papers, data sources, and other resources [is available at this link](#).

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