

Creating Effective Messages to Promote Oak Management



Lessons Learned:

The objective of this lesson is to highlight what message characteristics are most effective for stimulating landowner interest in adopting oak management practices.

Key Findings	Recommendations
Strong visuals are the most important attribute in messages designed to stimulate initial interest in adopting oak management practices.	Select compelling imagery for outreach material that is most likely to stimulate landowner interest. Our research found that featuring imagery of the ‘majestic oak’ was most attractive overall.
The source of a message can be as important as the message itself because people are more receptive to advice if it comes from sources they trust.	Use sources for your messages that are already trusted by landowners. In our research, this was University of Wisconsin-Extension and the Department of Natural Resources, though what sources people trust will vary by community and individual.
It is important to focus on the outcomes desired by landowners related to oak management.	Focus on benefits of oak management that are most important to woodland owners. Our research indicates that the benefit of creating wildlife habitat was the most important element in communications encouraging landowners to adopt oak management practices.

CHARACTERISTICS OF EFFECTIVE MESSAGING TO PROMOTE OAK MANAGEMENT

This lesson focuses on understanding what message characteristics are most effective in outreach materials designed to stimulate interest in adopting oak management practices. It is important to note that all persuasion must begin with capturing an audience’s attention, because, without gaining attention, persuasion is impossible (McKenzie-Mohr & Smith, 1999). To capture attention, outreach materials must break through the clutter of the many competing messages and demands. While this seems intuitive, it is an important reminder because typical outreach materials to promote woodland management practices focus on information and technical details and are not necessarily designed to be visually compelling to private woodland owners.

But what would make these materials compelling? Below are some messaging characteristics that have been associated with increased persuasion in other behavior change contexts.

Images—Piquing their Interest

Research indicates that most of the information people absorb is visual rather than textual. While the facts and science underlying recommendations to adopt sustainable forestry practices are important to communicate, many decisions, particularly early in the decision-making process, are driven more by ‘gut-level’

reactions, which are more likely to be elicited by images rather than text (Loewenstein, 2001). Compelling photos can create an emotional reaction and leave a lasting impression on recipients (Ewbank et al., 2009). Market research has also found that effective images are the single most important element in driving traffic to online advertisements (Chieruzzi, 2015). Therefore, the use of compelling imagery can be crucial for attracting initial interest in outreach to promote oak management. Images can be selected that reflect the different ways that people think about oak trees (see Brief #1 in the curriculum titled ‘Understanding Landowner Perceptions of Oak’). For example, images can be selected that emphasize the visual majesty of oak trees, the provision of wildlife habitat or the availability of acorns as a source of food for wildlife. Photos can also include people planting or interacting with oak trees to reinforce social norms that adopting oak management practices is a desired social norm in the community as well as highlighting the value of preserving the long-term future of oak trees for future generations.

Message Source—Building Trust

The source of a message can be as important as the message itself because the person or organization that delivers the message influences how it will be received. The source you use should take into consideration the audience you are trying to reach with a specific message. Perceived expertise, trustworthiness, famil-

ilarity, and likeability of the source are also crucial for increasing receptivity to a message (Perloff, 2003). It is often preferable to choose a source to deliver your message who is similar to your target audience in terms of background so the source is easier for the audience to relate to (McKenzie-Mohr & Schultz, 2014). Some landowners may be more likely to respond favorably to information or action requests from neighbors or people from their community who are perceived as holding similar interests and values than to requests from people who work for government agencies or other perceived “authorities.” Alternatively, well-known organizations may be considered by some audiences to have trusted expertise in a topic and therefore may be able to gain audience trust and confidence in the message.

Message Framing—Focusing on Woodland Owners’ Goals

The idea of ‘message framing’ is that the composition of a message influences how individuals process and respond to a message by making certain parts of an idea more salient (Cheng et al., 2011). In goal framing, an issue may be framed to focus attention on its potential to provide a benefit or gain (gain frame) or preventing or avoiding a loss (loss frame). Research suggests that a negative (loss) frame generally has a stronger impact than a positive (gain) frame (Rothman & Salovey, 1997; Chatterjee, Heath, Milberg, & France, 2000). Generally, individuals are averse to taking risks, which is why loss frames are usually more effective than gain frames (Bertolotti & Catellani, 2014). For example, one study found that homeowners who undertook a home energy audit were more likely to conserve energy if suggestions were offered in terms of a loss frame (e.g., you will lose money if you do not make some changes) rather than a gain frame (e.g., you will save energy if you make some changes) (Cheng et al., 2011).

To provide an example of goal framing in the context of forestry, people may adopt oak management practices to maintain oaks and acorns on the landscape as a reliable source of food for wildlife (a gain frame) or to avoid losing oaks and acorns as a reliable source of food for wildlife (a loss frame). While the distinction seems subtle, research consistently indicates that loss frames tend to be more effective as people tend to be more concerned about losing something than keeping something they already have.

Social Norms—Following the Lead of “Others”

Social norms are beliefs that individuals have about what others do or believe. Social norms have consistently been found to be an important factor in explaining behavioral intention (Armitage & Conner, 2001). Furthermore, providing individuals information related to social norms has moved people to adopt targeted conservation behaviors (McKenzie-Mohr, Nemiroff, Beers, & Desmarais, 1995; Griskevicius, Cialdini, & Goldstein, 2008; Miller & Prentice, 2016). There are also different types of social

norms. Relevant to this lesson, injunctive norms are behaviors that are perceived as being approved by others, whereas descriptive norms refer to beliefs about how other people are actually behaving. Particularly in ambiguous situations where people aren’t familiar with a new practice, descriptive norms have been found to elicit a larger response as individuals may have a greater need to look to others to guide their behavior (Gelfand & Harrington, 2015). In the context of oak management, messaging strategies using social norms might emphasize the number of woodland owners who are already managing for oak (descriptive norms); emphasize that other woodland owners believe that protecting the future of oak is a shared priority (injunctive norms); or invite woodland owners to join others in their community to take action to preserve the future of oak trees (general social norms).

Self-Efficacy Concerns (Barriers)

An individual’s perceived self-efficacy (i.e., the perception that one can perform a behavior) is one important factor that influences whether people adopt a new behavior (Dalrymple, Shaw, & Brossard, 2013). Self-efficacy beliefs are similar to the idea of perceived behavioral control, which includes beliefs about how easy or difficult it is to perform a behavior (Ajzen, 1991; Howell, Shaw, & Alvarez, 2014). In the context of crafting messages most likely to enhance woodland owners’ receptivity to messages about oak practices, it is important to build their confidence in successfully adopting the practice on their own land based on their particular areas of concern. Woodland owners can perceive a variety of concerns or barriers that may inhibit their confidence in adopting oak management practices. For example, they may be concerned about having access to trusted experts to guide planning and implementation; the financial costs of implementing oak management practices; or educational guidance about how to take a more active role in implementing oak management practices on their land. Creating messages that address these various barriers can help build woodland owners’ self-confidence to implement oak management practices.

MESSAGE TESTING EXPERIMENT METHODS

Delivering compelling and persuasive messaging requires understanding how different audiences may respond to the different possible components of a message, including images, sources, framing, and the use of social norms. Testing the effectiveness of these components is therefore an important step in the process. There are various message testing methods, such as the use of focus groups and quantitative surveys.

We used an experimental approach to test different components of an oak specific message. The initial survey of woodland owners in Wisconsin (see Brief #1 in the curriculum titled ‘Understanding Landowner Perceptions of Oak’ for the survey background)

Research suggests that a negative (loss) frame generally has a stronger impact than a positive (gain) frame.

provided the basis for our choices of the message components. A total of 335 panel respondents (woodland owners in southern Wisconsin) participated in our Internet-based message testing experiment. A portion of the sample was recruited as part of an online panel of woodland owners provided by Survey Sampling International. Additionally, we recruited woodland owners who were signed up as part of My Wisconsin Woods e-newsletter through a direct email request. Characteristics of panel respondents differed in some ways from respondents to other woodland owner surveys in the region. For example, there were more women represented in our panel compared to those who have answered woodland owner surveys in the past. Further studies that include different woodland owner audiences would help determine the relevance of alternative messages to other groups.

Respondents were exposed to several sets of side-by-side posters that displayed different configurations of the message characteristics described above and were asked to indicate which poster would motivate them to take action to improve conditions for oak on their land.

We employed a conjoint analysis statistical method used commonly in market research to determine what combination of message characteristics (e.g., images, sources, message framing) is most influential on respondent choice or decision-making. This is a method that simulates real-world choices whereby respondents must make tradeoffs from among a series of multi-attribute options (a choice set) in their preference decision process. Since we need to make choices about what characteristics to include in a message and can't include all possible options, it is useful to discover which combination of messages is most effective for stimulating landowner interest in taking steps toward adopting oak management practices.

Descriptions of the different message attributes and categories (hereafter the “levels” of a particular attribute) within each attribute are defined in Table 1. Conjoint analysis allows us to determine which of these attributes are most important in

Poster A



- Source of Information: Woodland owner organization
- Help majestic and mighty oaks grow and thrive.
- Half of woodland owners in Southern WI are already taking action to improve conditions for oak.
- Not sure how to get started to improve conditions for oak? Professionals are available who can provide information and help you develop a plan.

Poster B



- Source of Information: Local woodland owner
- Don't let majestic and mighty oaks disappear.
- Join your fellow woodland owners in Southern WI and take action to improve conditions for oak.
- Not sure if you would have the time and resources to improve conditions for oak? Grants are available that can help you cover the costs.

Which poster would motivate you to:

	Poster A	Poster B	Neither
Take action to improve conditions for oak on your land.	☐	☐	☐
Call a forest professional to help improve conditions for oak on your land.	☐	☐	☐

Figure 1. Example posters used in the choice experiment to understand different message components that resonate with woodland owners in Wisconsin.

Table 1. Message Characteristics Tested to Promote Oak Management

Message Attributes	Attribute Levels
Image	People Acorns Wildlife habitat Majestic/mighty oak None
Message Source	Wisconsin DNR Forest products industry Private forestry consulting firm Non-profit natural resource organization Woodland owner organization Federal natural resource agency University of Wisconsin-Extension Local woodland owner
Goal Framing (Loss vs. Gain Framing)	Ecological Gain: Help keep oaks and acorns as a reliable source of food for wildlife. Ecological Loss: Don't let oaks and acorns disappear as a reliable source of food for wildlife. Symbolic Gain: Help majestic and mighty oaks grow and thrive. Symbolic Loss: Don't let majestic and mighty oaks disappear. Utilitarian Gain: Help keep oaks as a reliable and high quality source of timber. Utilitarian Loss: Don't let oaks disappear as a reliable and high quality source of timber.
Social norms <i>(Statistics for the social norms are actual norms identified in our survey of woodland owners)</i>	Descriptive norms: Half of woodland owners in Southern WI are already taking action to improve conditions for oak. Injunctive norms: 9 out of 10 woodland owners in Southern WI feel that encouraging oak should be a priority. General Norms: Join your fellow woodland owners in Southern WI and take action to improve conditions for oak.
Self-efficacy concerns (Barriers)	Time/Effort: Not sure if you would have the time and resources to improve conditions for oak? Grants are available that can help you cover the costs. Knowledge (how): Not sure how to get started to improve conditions for oak? Professionals are available who can provide information and help you develop a plan.

influencing people’s choices and also which level within each attribute is most effective.

MESSAGE TESTING RESULTS

Importance of Different Messaging Attributes

Figure 2 displays the results of the message testing experiment examining the importance of different message attributes (images, message source, goal framing, social norms, and self-efficacy concerns). The ‘mindshare’ indicates how important each attribute was in influencing people’s preferences for different posters designed to motivate people to improve conditions for oak on their land.

The results indicate that photos were clearly the most important message attribute when people selected their preferred posters. This finding is consistent with past research about the powerful impact of imagery in gaining people’s attention. Additionally, the source of the message was the second most influential attribute. These results about the importance of photos and message source are interesting because often outreach designed to promote conservation focuses on text first and treats the selection of photos and message sources as afterthoughts once the written material has been completed. The presence of the other messaging characteristics – goal framing, social norms, and addressing barriers or self-efficacy concerns – rated substantially lower than the importance of images or the message source, but were still significant.



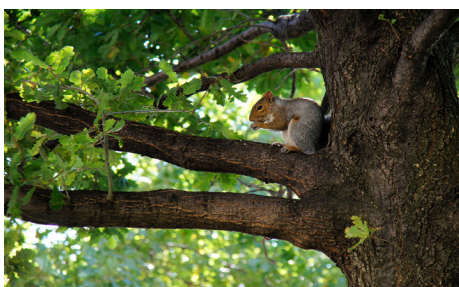
The ‘majestic oak’ photo performed best among the images tested to promote oak management.



A photo of a girl with a young oak highlighting the importance of preserving oak for future generations was the lowest performing image among the images tested.



Acorns are one of the first things people think about with oak trees. While not the highest performing photo, it was chosen frequently in message testing.



The wildlife habitat photo featuring a squirrel in an oak tree was the second highest performing photo among those tested.

Most Preferred Poster Overall

Average Importance	N=335
	"Mindshare"
Images	48.42
Source of Information	22.16
Goal Framing (Gain vs. Loss)	14.42
Social Norms	7.98
Perceived behavioral control	7.02

Image: Majestic oak

Source: UW-Extension

Benefits: Don't let oaks and acorns disappear as a reliable source of food for wildlife.

Norm: 9 out of 10 woodland owners in Southern WI feel that encouraging oak should be a priority.

Efficacy: Not sure if you would have the time and resources to improve conditions for oak? Grants are available that can help you cover the costs.



Captures 91% of mindshare — 9% prefer none

Figure 2. Most Preferred Poster Overall

Preferences by Attribute Level

Below we describe the most preferred levels within each attribute.

Imagery

As described above, four different photos plus 'no image' were tested. A photo of a 'majestic oak' was the highest performing image. The second highest performing photo was a photo of a squirrel in an oak tree, intended to represent the value of oak trees to wildlife. The third highest rated photo was of acorns as our previous research indicated that acorns are one of the first things that come to mind when people think about oak trees (see Brief #1 in the curriculum titled 'Understanding Landowner Perceptions of Oak'). The lowest performing photo was a picture of a girl with an oak tree, which was intended to represent the importance of preserving oak for future generations. However, having no photo at all on posters was by far the worst performing option, speaking to the importance of selecting compelling imagery in designing outreach materials for landowners.

Message Sources

We tested a variety of institutional message sources including organizations that currently disseminate forestry-related outreach and marketing materials to woodland owners in Wisconsin. As indicated in the top performing poster, the most preferred source for messages about oak management was University of Wisconsin-Extension. Listed in order, the next preferred sources were the Wisconsin Department of Natural Resources, woodland owner organization, local woodland owner, non-profit natural resource organization, federal natural resource agency, private forestry consulting firm, and the forest products industry. While we cannot always select the source of messages based on our existing role or institutional affiliation, knowing where we stand with landowners as a message source can help strengthen institutional credibility as needed.

and create partnerships that build trust with landowners to promote oak management and other land management practices.

Goal Framing (Gain vs. Loss)

Three different goals were displayed in the posters and each was presented as a loss or a gain frame (see Table 1). The three goals were: (a) Ecological, which was indicated in the loss frame by 'Don't let oaks and acorns disappear as a reliable source of food for wildlife; and in the gain frame by 'Help keep oaks and acorns as a reliable source of food for wildlife'; (b) Symbolic, which was indicated in the loss frame by 'Don't let majestic and mighty oaks disappear' and in the gain frame by 'Help majestic and mighty oaks grow and thrive'; and (c) Utilitarian, which was indicated in the loss frame by 'Don't let oaks disappear as a reliable and high quality source of timber' and in the gain frame by 'Help keep oaks as a reliable and high quality source of timber.'

The highest rated attribute level for goal framing was ecological stated in the loss frame (i.e., not losing oaks and acorns as a reliable source of food for wildlife). The second highest rated attribute level for goal framing was ecological stated in the gain frame (i.e., keeping oaks and acorns as a reliable source of food for wildlife). These results together suggest that focusing on the wildlife habitat goals of oak is solidly appealing in promoting oak management. The next highest rated attribute was utilitarian, related to oak as a reliable and quality source of timber. Specifically, the loss frame in the utilitarian condition (i.e., don't lose oak as a reliable and high quality source of timber) performed slightly better than the gain frame (i.e., help keep oaks as a reliable and high quality source of timber). Finally, the symbolic goal was the lowest performing of the message attribute levels. In this case, the gain frame (i.e., help majestic and mighty oaks grow and thrive) performed slightly better than the loss frame (i.e., don't let majestic and mighty oaks disappear). While there were significant differences between the attribute levels stated with both gain and loss frames as described above, it is important to note that the differences in performance were not large.

Social Norms

Three different types of social norms were tested to understand the relative importance of each within this attribute level:

(a) Descriptive norms, which was indicated by the text 'Half of

woodland owners in Southern WI are already taking action to improve conditions for oak'; (b) Injunctive norms, which was indicated by the text '9 out of 10 woodland owners in Southern WI feel that encouraging oak should be a priority'; and, (c) General social norms indicated by the text 'Join your fellow woodland owners in Southern WI and take action to improve conditions for oak.' Statistics for the social norms are actual norms identified in our survey of woodland owners (see Brief #1 in the curriculum titled 'Understanding Landowner Perceptions of Oak'). The highest performing attribute level was injunctive norms, followed by descriptive norms and general social norms.

The results show that the statistic indicating more prevalent social norms—9 out of 10 woodland owners feel that encouraging oak should be a priority—performed better than the statistic indicating that 'half of woodland owners are already taking action to improve conditions for oak.' Furthermore, both the injunctive and descriptive social norm messages using specific statistics performed better than the general social norms appeal to 'Join your fellow woodland owners in Southern WI and take action to improve conditions for oak.'

Self-Efficacy Concerns (Barriers)

Addressing self-efficacy concerns or barriers, two different levels were tested: (a) Time/Effort: This attribute level was indicated with the following text, 'Not sure if you would have the time and resources to improve conditions for oak? Grants are available that can help you cover the costs'; and (b) Knowledge (how): This attribute level was indicated with the following text, 'Not sure how to get started to improve conditions for oak? Professionals are available who can provide information and help you develop a plan.' While addressing concerns about time and resources through the availability of grants was the highest rated attribute level, there was little actual difference between which posters people selected based on differences in how this information was presented. Results suggest that addressing self-confidence and overcoming barriers to adopt oak management can be addressed by providing information about grants or cost sharing programs as well as offering access to forest professionals who provide information and help develop a plan.

Discussion Questions:

- Based on insights from this lesson, how could you improve educational and marketing materials designed to encourage landowners to adopt oak management practices?
- What images do you think would be most effective for encouraging interest in oak management practices with your clients?
- What message sources do you think would be most effective in communicating with your clients? Are there partnerships you could build with trusted message sources to enhance the receptivity of landowners to messages designed to encourage the adoption of oak management practices?

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