

USING STORIES TO PROMOTE CONSERVATION BEHAVIOR

A GUIDEBOOK

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December 21, 1993

Acknowledgments:

We are grateful to Dr. Lisa Bardwell, Ms. Anne Kearney, Dr. Martha Monroe, Mr. James Pinkham and Ms. Amy Weissman at the University of Michigan School of Natural Resources and Environment for help in preparing this guidebook.

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TABLE OF CONTENTS

SECTION 1 - INTRODUCTION	1
A. Purpose and Goals of this Guidebook	1
B. A Bias Against Stories as Educational Tools	1
SECTION 2 - WHY STORIES ARE USEFUL IN MODIFYING BEHAVIOR.....	3
A. The Human Bias for Stories	3
B. Stories as Substitutes for Direct Experience.....	3
C. The Use of Stories	4
SECTION 3 - KNOWING YOUR AUDIENCE	5
A. Goals and Subgoals.....	6
B. Topic Interest	6
C. Evaluation	7
SECTION 4 - ELEMENTS THAT MAKE STORIES INTERESTING	8
A. Coherence.....	8
B. Cognitive Challenge	9
C. Concreteness.....	10
D. Characterization.....	12
E. Vividness.....	14
F. Imagery	15
SECTION 5 - GETTING YOUR MESSAGE OUT	18
A. Format.....	18
B. Written vs. Oral	18
C. Translating Stories into Action	19
SECTION 6 - CONCLUSION.....	20

SECTION 1 - INTRODUCTION

A. PURPOSE AND GOALS OF THIS GUIDEBOOK

Environmental crises will soon force us to rethink our patterns of resource consumption. We face numerous challenges to our prosperity: climate stress, water shortage, air pollution, food insecurity, energy constraints, and massive amounts of waste. The demands environmental practitioners face differ qualitatively from those of only a decade ago. Just as these environmental stresses are occurring faster than ever, so is the rate of behavior change we need to thrive. Never before have so many individual behaviors had to change in so short a time.

An added challenge is that these behaviors, once changed, must stay changed. Unfortunately, popular ways to promote conservation behavior among citizens are more apt to affect short-term practices than to create self-sustaining change. Certainly, the urgency of environmental problems makes immediate behavior change a major concern. Of equal importance, however, is the need for the new behavior to continue.¹ Conservation behavior researchers are exploring many new educational and behavioral change techniques. This guidebook outlines one emerging approach: using stories as an advanced form of environmental education and as a way to change behavior. It seeks to persuade environmental practitioners that stories (e.g., success anecdotes, case studies) can prove a powerful tool in such change if used correctly. It also serves as a first step toward getting people to identify, write and use good stories.

B. A BIAS AGAINST STORIES AS EDUCATIONAL TOOLS

Before discussing the elements that make a story work as an educational tool, we must acknowledge a potential cultural bias against using stories for anything serious. Such a bias has been suggested by T. R. Sarbin in his book *Narrative Psychology: The Storied Nature of Human Conduct*. Sarbin explains the bias against stories in our educational system by using a theory of "root metaphors." This theory proposes every culture has a unique mental framework to help its members organize and make sense of their environment. Sarbin argues that the Western model is one of "mechanism." This world view heavily emphasizes raw data and cause-and-effect analysis over narrative or historical explanations. Such a perspective often leads to highly objective educational curricula, but it excludes most stories.

¹ De Young, R. (1993) Changing Behavior and Making It Stick: The Conceptualization and Management of Conservation Behavior. *Environment and Behavior*. 25: 485-505.

A more subtle bias also sways how people think about stories. Many tend to link stories and storytelling to fantasy and make-believe. They see these tales as primitive and non-scientific - suitable, perhaps, for children but appropriate only to entertain adults. Such a notion may explain why expository textbooks and information-laden fact sheets and textbooks dominate environmental education.

OTHER INFORMATION SOURCES

Rosen, H. (1985) *Stories and Meanings*. Northhampshire, England: David Green Printers, Ltd.

Sarbin, T. R. [Ed.] (1986) *Narrative Psychology: The Storied Nature of Human Conduct*. NY: Praeger Publishers.

SECTION 2 - WHY STORIES ARE USEFUL IN MODIFYING BEHAVIOR

A. THE HUMAN BIAS FOR STORIES

The cultural leaning against stories notwithstanding, strong evidence suggests that humans also have a natural bias toward thinking, perceiving and imagining with a narrative structure. Show people two or three unrelated pictures and ask them to remember what they saw, and they will typically fashion a story to explain the pictures and how they might relate. In a study where participants were shown two or more triangles in random motion on a computer screen, they almost always described the movements using narrative.² Even the most rational scientists have been known to use narratives to explain unusual phenomena and findings.

B. STORIES AS SUBSTITUTES FOR DIRECT EXPERIENCE

Direct experience (e.g., field trips, action projects, learning by doing) appears to offer an effective, engaging way to transfer knowledge. Research has shown that attitudes and knowledge developed in a direct-experience learning situation will predict future behavior better than attitudes and knowledge formed without behavioral experience (e.g., reading a book or brochure on the subject).³ People hold attitudes formed through direct experience with greater confidence and are more apt to resist changing them.

For many environmental issues, however, direct experience is impossible, especially with large-scale, climatic change issues such as acid rain and global warming. Often, as in the latter case, successful responses such as conservation or pollution prevention even depend upon preventing the direct experience and averting the degradation. Given the enormity and severity of many environmental problems, we need to learn indirectly about them and their appropriate behavioral remedies. In such cases, it helps to use narratives to simulate potential solutions or to forecast outcomes of our behavioral choices.

² Sarbin, T. R. [Ed.] (1986) *Narrative Psychology: The Storied Nature of Human Conduct*. Praeger Publishers: NY.

³ Fazio, R. H. and M. P. Zanna. (1981) Direct Experience and Attitude-Behavior Consistency. *Advances in Experimental Social Psychology*. 14: 161-202.

C. THE USE OF STORIES

Stories are highly efficient ways to fire imagination, simulate reality, clarify goals and values, and explore alternative solutions. They simplify complex situations and help people make sense of the information given.

Stories are familiar to all people, regardless of age or culture. They represent traditional ways to explain natural phenomena, convey morals and values, mold culture-appropriate behavior, preserve cultures and resolve personal problems. Oral stories have often captured the only body of knowledge a culture passes down from generation to generation.⁴ We need not go far to find the persuasiveness of stories in modern culture. We use them to tell the auto mechanic about the odd noises our care is making. They help us give directions to our house. Traditional midwives have used them as training tools to help diagnosis problems and identify appropriate remedies. Personal stories even influence government officials, who often make choices based upon narrative accounts of what happened in similar situations.

Example - A "Success Story" of Story Use:

Recognizing the ageless appeal of stories, the CEO of Armstrong International, David Armstrong, began using stories to educate his workers and communicate with them. They helped explain core values and create a vision of the corporation's future as well as to celebrate its success. The experiment worked so well that stories replaced the corporation's policy manual, and Mr. Armstrong wrote a book about his management technique.

Source: Armstrong, D. (1992). *Managing by Storying Around: A New Method of Leadership*. NY: Doubleday/Currency.

⁴ Stein, N. L. (1982) The Definition of a Story. *Journal of Pragmatics*. 6: 487-507.

SECTION 3 - KNOWING YOUR AUDIENCE

The first step in using stories successfully is to identify whom to target. Target audiences are groups that share common characteristics or common bonds. Consider them the consumer of your message and story.⁵ A story urging environmental professionals to carpool should differ significantly from one directed at college students. To assess your audience, ask:

1. **What is the specific message?**
2. **Who is the direct target of the message?**
3. **Do they have prior experience or prior knowledge of the message topic?**
4. **Can you break the target group down further (e.g., do subgroups exist who should be targeted differently?)**

It is common to analyze audience demographics, behavior, and attitudes. But it is vital yet rare to focus on their prior experiences and knowledge. A story that targets a specific audience, such as environmental activists, can assume these people would know carpooling benefits the environment. They might even have carpooled in the past.

Example - Breaking a Target Audience into

Different Groups: You might increase the number of people in a large office complex who carpool. An study would reveal subgroups that you may want to target differently when doing the intervention.

1. **People living in rural areas:** These people may not know anybody with whom they can carpool. They also have the most to benefit from reduced gasoline costs and automobile maintenance costs.
2. **Parents:** They may wonder how the carpool would affect day care, emergency pickup or other child-related activities.
3. **Different Schedules:** People who have abnormal schedules may fear that their needs would not be accommodated or that they would not find carpooling partners.

⁵ Beech, R. and A. Dake (1992) *Designing an Effective Communication Program: A Blueprint for Success*. The University of Michigan School of Natural Resources and Environment: Ann Arbor, MI.

A. GOALS AND SUBGOALS

Identifying the goals of your story will provide the foundation for developing its content. The goals should identify the story's purpose while subgoals identify the necessary steps to satisfy that purpose. A clear vision will make the entire process easier and increase chances for success. Try to write down all your goals and subgoals and then organize them by sequence, spatially or in both ways. Critical steps, first steps, difficult steps and less important steps will emerge.

B. TOPIC INTEREST

Although it makes sense that a person would be more interested in a topic about which she already knows something, the relationship between prior knowledge and interest is more complex: Studies have shown that people take little cognitive interest in completely unfamiliar material. Cognitive interest increases with more knowledge and then may taper again when a subject feels she knows everything about a topic. To maintain interest, then, you must pay careful heed to finding the appropriate amount and type of information to give people. Do not overload novices with new concepts or information out of sequence. For the apparent expert, the task is more complex. You must work harder to engage interest - paying more attention, for instance, to providing unique perspectives or identifying and filling in gaps in their knowledge that even they may not have recognized.

Example: Suppose you are teaching an information unit on recycling. If you begin with questions about the marketability of various types of recycled plastics when no one even knows the basics of the recycling process, they will quickly lose interest. Conversely, if you rehash how to sort and clean bottles for curbside pick-up for students are already familiar with the process, interest will probably plummet.

Key Point: *Research the prior level of topic knowledge in a target audience.*

C. EVALUATION

Evaluating any intervention is important since it lets you record successful elements and modify aspects that fail. You may want to do a pretest and post-test of your target audience to see whether the intervention worked. This is especially important the first time that a particular intervention is used. This evaluation step is often ignored, but without it you will never know if you have fulfilled your goals. If, for example, you implement a story program to change recycling behavior in a high school but never evaluate the program's success, you limit your ability to learn from the experience. We favor a pretest and post-test as a simple gauge of how much change has occurred.

OTHER INFORMATION SOURCES

Armstrong, D. (1992) **Managing by Storying Around - A New Method of Leadership**. NY: Doubleday.

Asher, S. R. (1979) Influence of Topic Interest on Black and White Children's Reading Comprehension. *Child Development*. 50: 686-90.

Beech, R. and Dake, A. (1992) *Designing an Effective Communication Program - A Blueprint for Success*. The University of Michigan School of Natural Resources and Environment: Ann Arbor, MI.

Entin, E. B. and G. R. Klare (1985) Relationships of Measures of Interest, Prior Knowledge, and Readability to Comprehension of Expository Passages. *Advances in Reading/Language Research*. 3: 9-38.

Garner, R. and M. G. Gillingham (1990) Topic Knowledge, Cognitive Interest, and Text Recall: A Microanalysis. *Journal of Experimental Education*. 59: 310-19.

SECTION 4 - ELEMENTS THAT MAKE STORIES INTERESTING

A. COHERENCE

For a story to be a useful tool, it must first be understood. A story that is coherent, that "hangs together," is easier to make sense of. Such coherence hinges chiefly how well one event causes and explains the next. Without this, readers must struggle to making associations among events. Their recall will be muddled, their interest reduced.

Do These Things

1. **Arrange events around a goal:** One of the main ways in which coherence is achieved is by arranging the events in a story to work toward a particular goal. This technique aids the reader in two ways. First, it creates a sense of movement through time. Secondly, it lets the reader organize the events in the story in a meaningful way. Finally, note that stories that have a positive or negative goal are better remembered than those with a neutral goal.
2. **Use organizational clues and aides:** Titles, paragraph headings or summary first sentences help readers mesh each succeeding sentence with what they perceive to be main ideas.

Example: "Traffic jams now dominate life in the world's largest cities. In Los Angeles, drivers inch along 12-lane 'expressways.' In Mexico City, children start school late to avoid the morning smog. Bangkok's office-workers suffocate on packed buses for an average of 2½ hours a day..."

Source: "Make Them Pay." *The Economist*. February 18, 1989 (310): 11-12.

OTHER INFORMATION SOURCES

Gergen, K. J. and M. M. Gergen (1986) Narrative Form and the Construction of Psychological Science. In T. R. Sarbin (Ed.) *Narrative Psychology: The Storied Nature of Human Conduct*. NY: Praeger.

Kieras, D. E. (1980) Initial Mention as a Signal to Thematic Content in Technical Passages. *Memory and Cognition*. 8: 345-53.

Kintsch, W. (1980) Learning from Text: Levels of Comprehension or Why Anyone Would Read a Story Anyway. *Poetics*. 9: 87-98.

Omanson, R. C., et al. (1978) Goals, Inferential Comprehension, and Recall of Stories by Children. *Discourse Processes*. 1: 317-54.

Stein, N. L. and C. G. Glenn (1979) An Analysis of Story Comprehension in Elementary School Children. In R. O. Freedle (Ed.) *New Directions in Discourse Processing*. Hillsdale, NJ: Lawrence Erlbaum Associates.

B. COGNITIVE CHALLENGE

Although materials should be coherent, do not spoon feed all the details of a story to readers. It is mystery that leads to interest and learning. Tales with small deviations from what is expected hold interest longer. In the scientific community, for example, physics journals seldom publish articles that confirm anew the law of gravity. Disproving gravity, however, would not only make it into a scientific journal, but onto the front page of major newspapers.

This idea that cognitively challenging stories hold more reader interest complements the belief that reading a story is like engaging in a mini problem-solving exercise.

Do These Things

Use Mystery in Your Stories: Mystery is one of the most well-documented elements of an intriguing narration. Because uncertainty lingers as to how the story will end, the enjoyment comes from the process of getting there.⁶ The presence of mystery can turn the reading process into a problem-solving task where the reader can check predictions against the unfolding of events.

NOTE: *Introducing suspense and modest complexity can also heighten interest.*

Avoid These Things

- 1. Entirely predictable or transparent narratives.**
- 2. Clichés**

⁶ Rabkin, E. S. (1973) *Narrative Suspense: "When Slim Turned Sideways..."* University of Michigan Press: Ann Arbor, MI.

OTHER INFORMATION SOURCES

Black, J. B. and G. H. Bowler (1980) Story Understanding as Problem Solving. *Poetics*. 9: 223-50.

Dewey, J. (1916) *Democracy and Education: An Introduction to the Philosophy of Education*. NY: Macmillan.

C. CONCRETENESS

Concreteness is about making your material mentally accessible or imaginable to the reader. Using language that brings your message "down to earth" helps the reader relate to abstract material in an individualized, personalized way. Using tangible examples (e.g., hammer, truck) instead of harder-to-imagine categories or concepts (e.g., tools, inland transportation) makes a story easier to make sense of, recall and retell. To escape the common mistake of presenting environmental problems as abstract issues, you must offer them in a way that relates to real people and their individual actions.

Do These Things

1. **Bring abstract ideas to a level where people can relate:**

Example of Abstract Text: Carpooling reduces urban traffic tie-ups, thus helping the commuter cut down on time spent in cars.

Example of Concrete Text: "Every 25 miles you drive adds one pound of pollution to the Valley's air."

Source: Regional ridesharing brochure, *Carpool Tips*. Regional Rideshare Program: Maricopa Association of Governments and Regional Public Transportation Authority.

2. **Use examples:**

When the Parkway Office Complex organized its workers into carpooling teams, they trimmed average commuting time by 14 minutes.

3. **Use analogies or metaphors:**

"Widening roads to control congestion is like letting your belt out to control obesity."
- Maine activist from *Maine Environment*.

Source: Malaspina, M., K. Schafer and R. Wiles (1992) What Works, No. 1: Air Pollution Solutions. *The Environmental Exchange*. Washington, D. C. (May): 37.

4. **Use descriptive adjectives and active verbs:**

Example: Bottleneck traffic jams trap large numbers of cars rushing to work each morning, forcing them to idle in clouds of thick, black smoke.

Avoid These Things

1. **Technical or scientific language (unless writing to a highly technical audience)**
2. **Jargon**

Test Your Material for Concreteness

1. Does your material produce a clear, perhaps commonplace, mental image of the concept you wish to relay?
2. Does it produce a clear mental image for someone unfamiliar with the topic?

D. CHARACTERIZATION

A good story involves the reader through its use of characters. A character is someone the reader can identify with, care about, and follow throughout the story. Consider, for example, the powerful appeal that soap opera or traditional literary characters (e.g., Scrooge) hold for the reader.

Golden Rule of Using Characters

For the characters to be interesting, they must be someone with whom the reader can identify.

This important familiarity has much to do with factors such as age, gender, ethnicity, socio-economic situation, and geography. Characters familiar to the reader - whether popular celebrities or historical figures - will be more interesting and engaging. Best of all are characters you know will stir your specific audience.

Such characters need be positive to be salient or motivating. Negative characters can also be powerful.

Example - Schmarpool:

"Pollution, schmollution," says Ralph Mudgeon, and you can bet he means it, as he sucks down his morning coffee. His wife ignores him, so he tries again.

"Carpool, schmarpool." He takes another drink and grimaces. The coffee he makes is quite awful, but that's the way he likes it, he says: "Thick as tar, get you going in the morning." His wife is drinking milk and reading from the front page of the newspaper. He tries again.

"Somebody decided it was a 'no-drive' day at work." (His tone implies that he suspects some eco-terrorist group is behind it all). "They want to give us incentives to carpool. 'Positive Motivation,' they want to call it. Positive, schmositive, I say.

Source: T. Kearney (1992)

OTHER INFORMATION SOURCES

Anderson, R. C., et al. (1987) Interestingness of Children's Reading Material. In R. E. Snow and M. J. Farr (Eds.) *Aptitude, Learning and Instruction, Volume 3*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Hidi, S. and W. Baird (1986) Interestingness - A Neglected Variable in Discourse Processing. *Cognitive Science*. 10: 179-94.

Jose, P. E. (1989) The Role of Gender and Gender Role Similarity in Readers' Identification with Story Characters. *Sex Roles*. 21: 697-713.

Jose, P. E. and W. F. Brewer (1984) Development of Story Liking: Character Identification, Suspense and Outcome Resolution. *Developmental Psychology*. 20: 911-24.

Tversky, A. and D. Kahneman (1982) Judgment Under Uncertainty: Heuristics and Biases. In D. Kahneman, P. Slovic, and A. Tversky (Eds.) *Judgment Under Uncertainty: Heuristics and Biases*. NY: Cambridge University Press.

E. VIVIDNESS

Just as concrete language grafts new knowledge onto something familiar, so vivid language helps draw attention to the material. Vivid language appears to help improve memory because people react to it much as they do to actual emotional situations. Although the reader knows events in the story are not necessarily happening in the real world, the vivid material helps to access stored mental knowledge related to the new information.

Do These Things

1. **Use colorful, descriptive adjectives and adverbs.**
 - a) **Describe something unique or exciting.**
 - b) **Add anecdotes and examples to add color, action, life and interest.**
 - c) **Use emotional appeals.** (*Caution:* Exercise care when using fear appeals since they can also frighten readers or emotionally overwhelm them - giving rise to a sense of helplessness or avoidance of the topic).⁵

Example - Vivid Language: "The slavery of hours spent commuting in a car each day can no longer masquerade as freedom."

- Richard Ayres, NRDC Attorney.

Source: Malaspina, M., K. Schafer and R. Wiles (1992) What Works, No. 1: Air Pollution Solutions. *The Environmental Exchange*. Washington, D. C. (May): 23.

Example - Vivid Language: Title: *Colorado Game Show Teaches Clean Air Solutions*. It may just be the hottest new game show in Colorado. "The Air is Right," hosted by Whiff the Clean Air Pup, has garnered rave reviews in elementary schools throughout the state since its first appearance in 1990. Whiff is the popular mascot of Colorado's Clean Air Campaign. His game show tests students' knowledge of air pollutants and pollution prevention strategies."

Source: Malaspina, M., K. Schafer and R. Wiles (1992) What Works, No. 1: Air Pollution Solutions. *The Environmental Exchange*. Washington, D. C. (May): 90.

OTHER INFORMATION SOURCES:

Bower, G. H. (1979) Mental Imagery and Associative Learning. In L. Gregg (Ed.) *Cognition in Learning and Memory*. NY: Wiley.

Scherer, M. and R. W. Rogers (1984) The Role of Vivid Information in Fear Appeals and Attitude Change. *Journal of Research in Personality*. 18: 321-34.

Tulving, E., et al. (1965) Vividness of Words and Learning to Learn in Free-Recall Learning. *Canadian Journal of Psychology*. 19: 242-52.

Vrana, S. R., et al. (1986) Fear Imagery and Text Processing. *Psychophysiology*. 23: 247-53.

F. IMAGERY

Another element of storytelling that rivals the importance of vividness comes in the form of imagery. One of the prime advantages that stories hold over other forms of educational material is their ability to help people understand not only what the problem is but how to solve it. People often understand the problem and have the knowledge necessary to change behavior yet still feel hopeless. Stories helps them imagine what their role in solving the problem might look like, what the steps involved might "fee

I" like and how they will know when a solution is near. The ability of educational materials to help people get this image is especially crucial in the environmental fields, where people often feel individual efforts cannot make a difference.

Do These Things

- 1. Use case studies or "success stories" of people solving problems**
- 2. Use examples of average people**
- 3. Use examples of extraordinary people and heroes**

A Success Story - Grade School Students Organize Carpools to Fight Florida's Pollution:

"Learning by doing" is a watchword for many environmental educators. The best way to teach kids recycling is to teach them why it's important, then get them to do it; teach them why it's smart to save energy, then get them to turn out the lights...

Charlotte Pine is one teacher who has proven that air-pollution education can be a great hands-on experience. In the spring of 1991, her kids developed a carpool system for Nob Hill Elementary School...

Students were involved in a number of different projects throughout the year...

The students divided up into teams and went around all the classes in the school, giving presentations and asking teachers and students to fill out carpool survey forms...

In conjunction with an in-school "public relations" campaign, three contests were organized: a slogan contest, a bumper sticker contest, and a poster contest. The winning slogan, *Pollution Solution - Carpool!* will be printed on bumper stickers and distributed to all car-poolers at Nob Hill...

The kids learned that changing people's lifestyles is difficult, but not impossible...Pine's class was selected as one of the "Champion Defenders of the Earth" by the United Nations Environment Program, and she and three students recently traveled to New York to receive the award.

Source: Malaspina, M., K. Schafer and R. Wiles (1992) What Works, No. 1: Air Pollution Solutions. *The Environmental Exchange*. Washington, D. C. (May): 86.

OTHER INFORMATION SOURCES:

Bardwell, L. (1991) Success Stories: Imagery by Example. *Journal of Environmental Education*. 23: 5-10.

Pavio, A. (1979) *Imagery and Verbal Processes*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Sadoski, et al. (1988) Imagination in Story Response: Relationships Between Imagery, Affect and Structural Response. *Reading Research Quarterly*. 23: 307-33.

Malaspina, M., K. Schafer and R. Wiles (1992) What Works, No. 1: Air Pollution Solutions. *The Environmental Exchange*. Washington, D. C. (May).

SECTION 5 - GETTING YOUR MESSAGE OUT

A. FORMAT

Once you have your story you will want to start thinking about how you will get your message out. Do you want to tell the story orally? To a large audience or smaller, more intimate groups? Will your audience all attend at an event - an opportunity you might wish to seize - or will they be dispersed? You must consider several factors: ⁵

1. **The message - its complexity and length;**
2. **The audience - its size, geographical location and distribution, and preference for certain media formats and channels; and**
3. **The available resources - money, time, staff availability and skills.**

The message: Complex messages may require a fact sheet to go along with the story, while simple messages will do fine on their own. It would be good to try out your message beforehand with a small group from your target audience and get their feedback on the story's content and whether the message is clear and interesting.

The audience: Having done your target audience research, you should already know a lot about them. Make sure they will respond to the format and channel you choose.

Available resources: Who is going to distribute the story? Can staff people help? Be sure to match the formats with the skills and expertise of your staff. Your local recycling expert may not be suited to telling a recycling story in front of an audience or using desktop publishing software.

B. WRITTEN vs. ORAL

Oral stories can be more engaging, interactive, and able to provide a better experience for those involved. They also require more preparation, and most importantly, someone who can tell a story well. Written stories can reach a larger audience and require fewer logistics, but they may be less engaging. To help decide, consider these questions:

1. **Is there a person capable and willing to tell stories?**
2. **Are there specific resource constraints that may make the decision for us?**
3. **How many people do we want to reach? Are they often in one place, such as a school?**

C. TRANSLATING STORIES INTO ACTION

Now that your audience has heard your message, can they act on it?

Example: You have just told a story about the benefits of carpooling. To translate the knowledge into action, you tell the audience that after your talk local experts will discuss setting up workplace carpools with anyone interested. You can also provide fact sheets so that people can further research the merits of carpooling. Another idea would be to provide a sign-up list that people could use to find carpooling partners.

Key Point: *This is perhaps the most important aspect of making your story successful. Providing people with opportunities to act is the last step in the environmental storytelling process.*

OTHER INFORMATION SOURCES:

Beech, R. and A. Dake (1992) *Designing an Effective Communication Program: A Blueprint for Success*. The University of Michigan School of Natural Resources and Environment: Ann Arbor, MI.

Hanson, B. and B. Roemmich [Eds.] (1983) *Stories for the Campfire*. American Camping Association Inc.: Martinsville, IN.

Thorndyke, P. (1979) Knowledge Acquisition from Newspaper Stories. *Discourse Processes*. 2: 95-112.

SECTION 6 - CONCLUSION

Environmental problems are often complex, abstract, and overwhelming. Behavior that would improve matters may be unfamiliar and inconvenient. The task facing us is not to let these negative facets of the problems and potential solutions spill over into our interventions. We believe stories offer a practical way to accomplish this task.

Research continues on the basic elements of stories and how they function in the educational and behavioral change processes. New knowledge and suggestions will surely emerge. For now, we hope that this guidebook helps people to identify, write and use good stories.