

IMPACTS OF ECOLOGY-THEMED INTERPRETATION PROGRAMS AT A COLORADO OPEN SPACE PRESERVE ON ATTITUDES, BELIEFS, AND KNOWLEDGE

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Background:

- South Platte Park is located on Colorado's Front Range, in Denver's southern suburb of Littleton
- The 880 acre park includes five lakes, two and one-half miles of the South Platte River, and more than four miles of trails
- Many visitors are drawn to the park by its spectacular geological formations and diversity of animal and plant species
- South Platte Park provides habitat for more than 245 species of birds, including bald eagles, osprey, and great blue herons.
- Other wildlife species that depend on the park include at least 60 species of mammals, reptiles, amphibians and fish.
- Visitors were likely to value the park as a preserve, understand the significance of its wildlife, and support programs aimed at conserving wildlife after participating in an interpretive program
- Research has found that free-learning environments work best when exhibits and activities are interactive and experience-based (Van Moer et al., 2008).
 - One researcher concluded that half of all American science learning results from visits to free-choice learning facilities (Falk, 2005).
 - Another concluded that substantial and enduring knowledge gains are experienced by those that participate in free-choice learning experiences (Falk, 1999).
- Free-choice learning environments appear to contribute to learning in a very large percentage of those who participate in relevant activities (Briseno-Garzon et al., 2007; Falk & Dierking, 2002; Stocklmayer, 2005).

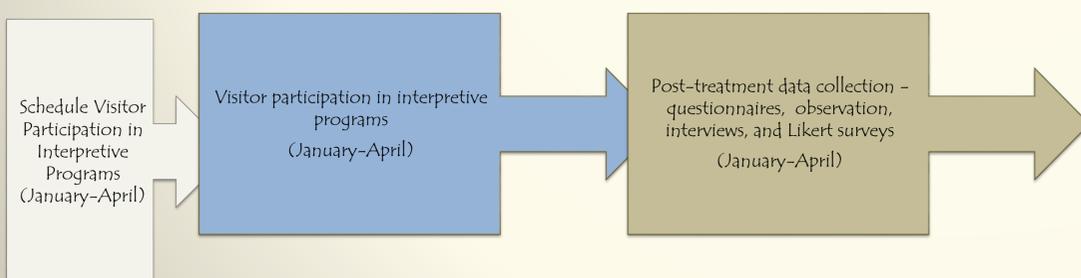


Methodology:

- Participants were asked to complete a Post-Visit Questionnaire and Post-Visit Likert Survey
- Qualitative observation was used

Data Analysis:

- Data from treatment data from the visitor questionnaire and Likert survey were analyzed using the relevant statistical method
- Qualitative survey data was tabulated and examined for recurring or consistent ideas and themes
- Research confirmed that visitors indicated positive attitudes, beliefs, and knowledge relating to the park's wildlife resources after participating in interpretation programs
- The idiosyncrasies of interpreters' methods affects visitor attitudes, beliefs, and knowledge, an unavoidable outcome resulting from the nature of the interpretation function.
- Active free-choice learning programs, as opposed to passive interpretation approaches such as lecture-style or Q&A presentations, seem to result in greater changes to visitor attitudes, beliefs, and knowledge about the park's biological diversity and ecological significance.



Values and Claims Reflections:

- Future questions may include
 - (1) how does incorporation of formal learning standards into an interpretive experience offered to visitors affect outcomes and
 - (2) do personal religious values and/or other demographic characteristics appear to affect a visitor's openness to learning about the geologic features of this or other preserves.
- The project may provide some additional support for previously documented findings that hands-on, outdoor interpretive education techniques do build and reinforce emotional and intellectual connections with nature.
 - Such an effect is essential if public support for the preserve, and achievement of its goals over the long term, are to be achieved.
- Naturalists and education rangers may see in the results a ratification of their practice of engaging in an active, hands-on approach to informal science learning at parks and preserves.
 - Rather than fall into a pattern of using a "talk and listen" method of informal education, they may be more likely to encourage visitors to use their own observation skills and ask questions and to tie the natural phenomenon the visitors observe to larger issues like their importance to wildlife, ecosystems, and the role of the preserve.
- The project highlights the importance of integrating ecological concepts into interpretation.
 - It is reasonable to assume that participants may understand the connection between wildlife populations and human activities and of the importance of diverse habitats to a functional nature preserve.
 - Given that likelihood, interpreters can and should focus more threats to local habitats and ecosystem function, which may in turn increase the likelihood that visitors will connect their experience at the preserve with the activities in which they, their families, their friends, and other fellow citizens engage on a day-to-day basis.

Figure 1. The South Platte River runs through South Platte Park.

Goals:

- Determine whether attendance at an ecology-themed interpretation program positively impacts visitor attitudes about preservation of the park's natural resources
- Determine whether attendance at a ecology-themed interpretation program results in visitor expression of positive beliefs about biological diversity within the park, including the importance of the park to wildlife populations
- Determine whether visitor knowledge about wildlife conservation needs is improved as a result of participating in an interpretive learning opportunity.
- Determine whether participant attitudes, beliefs and knowledge about wildlife and ecology after participating in an interpretation program differed on the basis of gender

I am more motivated to learn about actions I can take that will help protect wildlife and its habitat.

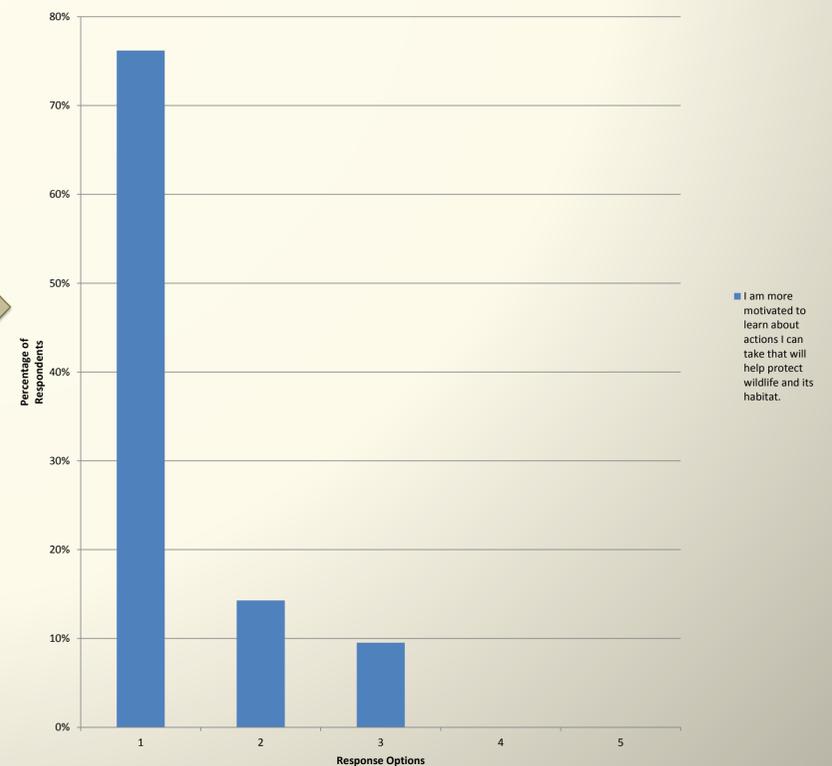


Figure 2. This graph indicates that participants in the interpretation programs studied during this project demonstrated a near consensus that further learning about the needs of wildlife would be useful (N=21). Note. Response options were 1 (strongly agree), 2 (agree), 3 (neutral), 4 (disagree), and 5 (strongly disagree).

