

# TESTING TOOLS FOR OUTDOOR RECREATION, ENVIRONMENTAL EDUCATION, AND STEWARDSHIP: ALLOWING CHILDREN TO CHOOSE THE RULES

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## ABSTRACT

### Introduction

Engaging children in natural settings enhances learning, promotes early childhood development, and makes use of protected natural areas. Unfortunately, many schoolchildren, especially from economically disadvantaged areas, lack support for environmental education (EE) to develop skills and attitudes that increase rates of appropriate outdoor behaviors. Improved access to environmental education should reduce the amount of resource degradation that occurs when children visit protected natural areas. Many of these children's deprecative behaviors can be classified as uninformed or unintentional (Hendee et al. 1990), implying that guided critical thinking *before they visit* will enable them to make better choices when outdoors and raise awareness of situations that otherwise result in such behaviors (Roggenbuck 1992). This research project develops a model program of replicable, low-cost, widely accessible critical thinking activities and materials designed to directly address this problem.

Providing children with previsit activities improves cognition during a trip and can supply the proper preparation to outline expectations of visitor behavior (Griffin and Symington 1997). However, many protected areas in southern Illinois either do not offer previsit materials or their materials do not address outdoor ethics and behavior expectations. The Girl Scouts of Southern Illinois (GSSI) is one group that has not been included in a widespread EE program. GSSI, with more than 14,000 scouts, many of whom come from economically depressed areas, agreed to be a partner in our research project. Additional partners included Camp Ondessonk, a private residential camp in Ozark, IL; the Leave No Trace Center for Outdoor Ethics; and the Crab Orchard National Wildlife Refuge.

GSSI scouts visit protected natural areas such as Crab Orchard National Wildlife Refuge in Makanda, IL, throughout the year. In the summer, Crab Orchard hosts hundreds of girls aged 7-18 years for a series of weeklong residential camps at Camp Cedar Point. The effects of these visits on the refuge have not been documented, and there are concerns that, despite a short session in which the counselors go over the rules for the week, the girls are not adequately prepared to interact with the protected natural areas within the refuge.

### Methods

The study had two objectives: (1) to engage campers with a variety of small-group interactive workshops to cultivate resource-appropriate behaviors, and (2) to assess the effectiveness of three specific engagement methods. Eighty-five Brownie (grades 2 and 3) and Junior level (grades 4 and 5) Girl Scouts participated in small workshops held during the first full day of each of five weeklong

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summer residential camps at Crab Orchard. In addition, 68 coed campers participated in a workshop held during the first full day of a 4-day private residential camp at Camp Ondessonk. An additional 72 campers across the two study sites participated in a control treatment, a pre-camp survey and a post-camp survey without any workshop.

Original activities involving a discussion-based journal, handmade wristband, and interactive games were conducted during these workshops. All activities were developed according to the North American Association of Environmental Education (NAAEE) Guidelines for Excellence. Surveys were administered before and after the workshops to determine camper attitudes; a followup survey was administered at the end of camp. Camper behavior on a hike was observed as well.

## Results

It was hypothesized that a combination of all three methods of engagement would be the most effective approach in reducing depreciative behavior and changing attitudes toward resource protection by addressing multiple motivations. Overall, campers' attitudes grew more favorable toward resource protection after any of the activity combinations; the most significant increase followed the treatments with all three engagement methods. The post-camp followup survey indicated a slight decrease in scores, although averages were still higher than those of the pre-program survey. Depreciative behavior levels on the hikes were correlated with the post-session survey scores, although precipitation also had an effect on behavior.

## Conclusions

The most effective combination of activities—the journal, bracelet, and games—will be modified into a “kit” for regional use by scouting groups and school groups before attending field trips to protected natural areas. When used as a set of previsit activities, the hands-on program should prevent depreciative behaviors within the park by encouraging environmental stewardship. This project cultivates a population that is environmentally literate and willing and able to translate knowledge and skills into decisions and actions when outdoors. In addition, because visiting students would be more prepared from the outset, park educators could spend more time interpreting the natural resources and less time explaining and enforcing the rules.

## Literature Cited

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