Rural New York Initiative
Research & Policy Brief Series,
December 2004

Department of
Development Sociology

What is the best way to Transfer Technical Environmental Information to a Non-Technical Audience?
Environmental Sustainability and an Informed Citizenry

by
Linda P. Wagenet

What is the Issue?

Environmental issues will undoubtedly pose serious challenges for global society in the 21st century, and a concerned and informed public will be essential to effectively address these challenges. What is the connection between how the public is informed about the environment and how that public knowledge impacts environmental policy and management practices?

Program evaluation must go beyond merely counting how many stakeholders received information on a given topic. Instead, assessments must tap into what participants actually *learned* from the experience, and how their activities and attitudes changed as a consequence.

We describe an environmental education program that evolved from cooperative extension educators' concern about declining attendance at face-to-face workshops on environmental issues, and the question of whether these educational materials might be more effectively delivered in other ways – and in particular through televised and other media. The project took place in the Upper Susquehanna River watershed in New York State.

What were the Program Objectives?

• Evaluate whether participating in the project increased individual knowledge of environmental issues

• Evaluate whether participating in the project increased commitment by householders to environmental stewardship.

What did the Programming Involve?

• Six 30-minute television programs broadcast on consecutive Saturday mornings

• Three 15-minute radio programs aired on public radio stations

• World Wide Web-based materials

• Information in print form placed in public libraries and mailed to homes.

How was the project conducted?

The project was conducted in collaboration among Cornell University researchers, extension educators within Cornell Cooperative Extension, and media consultants from WSKG Public Television (Binghamton, New York). To address the issue of knowledge transfer within a watershed context, we developed a multimedia program about environmental

issues in the Upper Susquehanna River watershed in New York State. A representative sample of 871 residents was randomly selected from the tax rolls in 2 counties in the WSKG viewing area. While both the control and survey groups were asked to complete the pre- and post-broadcast surveys, the control group did not watch the television programs or utilize auxiliary materials.

What were the Findings?

• No clear positive impacts of the educational programming on post-broadcast knowledge.

• The most important predictor of post-broadcast environmental knowledge and commitment was the level of environmental knowledge and commitment *prior to* the educational programming.

• Factors such as age, gender, education, income, and how many of the 6 shows were watched were not significant predictors of increased knowledge.

• The educational program did *not* have a significant impact on how study participants felt about their environmental knowledge or commitment

Conclusions & Recommendations

Which mechanism of transfer is the most effective is not the central point. Rather, we need to focus on how to generate interest in fully utilizing the materials, especially among those citizens who do not have the initial interest or who might feel that they do not possess the educational background to participate in such programming. By just assuming that all environmental education opportunities are effective, we can misjudge the needs of the population. Given that a substantial number of the survey group participated so as to increase their awareness of the environmental issues in their watershed, localizing the environmental education seems to be a necessary first step.

It is assumed that effective programming can be a catalyst for behavior change. However, we need to better understand what the required elements are for making behavior change occur. This study highlights that for a particular survey group, the educational methods and program structure chosen did not result in substantial knowledge or commitment change.

The National Environmental Education and Training Foundation (2001) report recommends using television in a broader sense than this project undertook, i.e., changing regular television weather reporting into environmental reporting. The report also suggests that environmental education should be integrated more fully into school programs, environmental news coverage should be better supported, and a comprehensive gateway on the World Wide Web should be developed. However, the report also concludes that continued measurement and reporting "on the extent and impact of the lack of adult environmental knowledge" (page 33) should be conveyed to decision makers.

We agree with these conclusions and strongly feel that more study is needed in the realm of environmental education program impact and the linkages to behavior changes that result in environmental protection. The key point is this – does environmental education result in environmental protection? The assumption that environmental education "just works" is not necessarily sufficient. Rigorous evaluation provides valuable information for focusing environmental education opportunities and targeting the audiences that would most benefit from the effort

Linda P. Wagenet is a Senior Extension Associate in the Department of Development Sociology, Cornell University.