

Chapter 8

Pre-testing EE&C Products

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Consider these scenarios.

Before printing a new environmental education teaching guide, the organizers asked some teachers to test a few of the activities. The teachers' comments were thorough, (e.g. it is hard to find clear plastic boxes for the groundwater activity, it takes much longer than the specified 45 minutes for students to practice this play, the illustrations imply that all teachers are women, and it would help immensely if the materials provided suggestions for assessing student knowledge after completing each unit). Grateful for such specific suggestions, the organizers incorporated them into the final version of the guide before the production deadline...

The authors of a comic book on water pollution struggled to illustrate the concept of "pollution" without making the character overly negative. In focus groups, non-literate adults and teenagers commented on six potential characters: "This one looks sick; that one looks like a grandpa." After another round of testing, the authors settled on a pollution character who looked serious and sick rather than grandfatherly or mean...

As these scenarios illustrate, a critique of draft material by the intended audience—well before production deadlines—is a vital step. Equally important is asking the right questions so that audience feedback makes a helpful contribution.

The previous paragraph sounds so simple that it should be common sense. It is repeated often in this manual for good reason, however. Time and time again, materials production runs into writing delays and then production deadlines that squeeze out the crucial step of pre-testing. Deadlines are real: publications need to be distributed before the end of the school year, radio plays must be finished

for World Environment Day. Sometimes a squeezed budget forces a decision to move the pre-testing money into production. Yet, despite the challenges, pre-testing all education and communications products is vitally important.

To repeat the obvious, high-quality environmental education and communication (EE&C) products result from pre-testing draft materials well before production deadlines. This chapter explores the type of information that pre-testing can provide, strategies for obtaining this information, important differences between using and reviewing the materials, and helpful tips for program managers.

WHAT PRE-TESTING PROVIDES

The process of asking the intended audience to review, comment, talk through, or try out an EE&C product enables the program manager to ask a variety of targeted questions. Some sample questions are provided below in Table 8.1.

Very different information is collected if users are asked to apply the materials in their work—conduct a workshop, teach students, facilitate a meeting—and respond to a series of questions from their experience. This procedure is in fact a much better test of the material. Are directions written clearly? Are the objectives really accomplished? Are the handouts and overheads sufficient? Can the participants follow the delivery? Do the materials meet the needs? Are the materials adaptable to different situations? In this case, a survey or follow-up meeting will help focus the users on the questions that should be answered.

Expert reviewers form another category for pre-testing. Although technically not users, they can

Table 8.1 Pre-testing Questions

For a communications product, ask the intended audience...

- ◆ What do you think the main message of this poster/ad/radio spot/etc. is?
- ◆ To whom is this message directed?
- ◆ Could it be you? Why or why not?
- ◆ Does the main character remind you of someone you know? Why or why not (which may be prompted with specific questions about hairstyle, clothing, gender, etc.)?
- ◆ What would prevent you from doing the suggested behavior?

For an educational product, ask teachers or administrators...

- ◆ Is this activity/poster/filmstrip/booklet something you could use in your class?
- ◆ For what grade level is it most appropriate?
- ◆ For what subject is it most appropriate?
- ◆ Are the illustrations appropriate? Gender-free? Ethnically appropriate?
- ◆ Is the vocabulary appropriate?
- ◆ Will the activity help you meet your curriculum objectives?

- ◆ Would you use this? Why or why not?
- ◆ Would you need training to feel comfortable using this?

Rather than asking teachers questions about their student's reactions, ask teachers to conduct the activity and record students questions, comments, or activities. In addition, students could fill out a response sheet.

- ◆ Did you alter the activity from what was written? If so, how?
- ◆ Did boys and girls respond differently? If so, how?
- ◆ Please give some examples of the questions that students asked.
- ◆ Please give some examples of student reactions to the activity. Were they engaged? Did they stay on task? Were they confused?
- ◆ Did you achieve your objectives? Did your students gain knowledge or skill?

For any product, ask experts...

- ◆ Is the information conveyed here accurate?
- ◆ Is the message conveyed appropriate?
- ◆ If people adopted this behavior, could it make a difference in the problem?

provide critical information that the authors might miss. Distance has a way of providing a valuable perspective.

Drawn from the GreenCOM/Egypt experience, the following example illustrates the pre-testing process and underscores the value of this step in communication materials development.

PRE-TESTING A FARMER'S SURVEY IN EGYPT

In 1998 the GreenCOM/Egypt mesqa or irrigation canal project targeted farmers with a national, comprehensive survey of knowledge, attitudes and practices that included important questions previously unasked on a systematic basis.

GreenCOM designed a pre-test to check many elements of the survey design: the sample frame (a listing of farmers on 240 canals nationwide), the

questionnaire, and fieldwork logistics. All would be modified based on the pre-test experience.

The research firm set up the pre-test sample using canals similar to but outside the main sample to avoid using any farmers targeted for the survey. Over 100 respondents were interviewed during the pre-test.

As a result of the questionnaire pre-test, we decided to:

- ◆ *Reduce the complexity of some questions*—The pre-test questionnaire tried to do too much, asking about both the farmer's practices on canal-side land, and about land holdings elsewhere. This was burdensome on the respondent, and certainly would have made analysis and report writing very taxing. The final questionnaire asked only about land owned on that particular canal.
- ◆ *Make the questionnaire more concise*—It is hard for any researcher to pass up the oppor-

tunity to capture every aspect of the subject under investigation by increasing the number of questions. During the pre-test, it became clear that some questions designed to get at different aspects of a subject were interpreted as the same questions, proving burdensome to the respondent and not providing additional substantive information. As a result, these questions were combined.

- ◆ *Settle for more general answers*—One set of questions asked how large a fine a farmer would pay in the case of four hypothetical conflicts among farmers. The pre-test showed that farmers found it difficult to specify an amount, so the question about an amount was dropped, leaving simply the fact that a monetary fine would be exacted. Even this lesser level of detail provided rich material for the analysis.
- ◆ *Reduce the sensitivity of questions*—One question was so sensitive that it had to be deleted. Increasing farmer participation through cost sharing is an important GreenCOM Egypt sub-objective, so the survey sought to measure the willingness of farmers to share in the costs of upgrading the irrigation system. In fact, the Ministry has not adopted this policy, since cost sharing is a

highly sensitive matter. The project worked closely with an economist to draw up two apparently simple and straightforward questions concerning willingness to pay to provide continuous flow and to upgrade the drainage system which, through statistical analysis, would yield exact amounts or ranges that respondents were willing to pay.

But during the pre-test, respondents interpreted this question as an indication that the Ministry was contemplating charging for a natural resource, and they responded angrily. This response led the research firm to conclude that the quality of the questionnaire would be compromised by retaining the questions. The Ministry and the project replaced them with two yes/no questions on willingness to pay. The results suggest that the question was not as biased as one might expect, with around 75 percent of male farmers and 50 percent of female farmers saying they were willing to pay.

After the revisions, the questionnaire was used to produce some ground-breaking research. Compromises led to a better rapport between respondents and interviewers, and paid off in results that may be less biased and of higher quality and reliability than those produced by a questionnaire less extensively pre-tested and rigorously modified.