Chapter 10

Building Capacity through Training

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Training is a key element of many GreenCOM projects. The trainees may vary from teachers to policymakers to project staff. But in every case, training involves some type of professional development to support a change in practice. Changing practices imply a change in behavior. As stated in Chapter 2, behavior change is more likely in a supportive environment. Successful training programs, therefore, include ways to change the culture, climate, and reward system. They also provide positive reinforcement for the new behavior.

A good training program can be a key element in larger efforts to share information or change behavior. Teacher training can lead to the acceptance and use of a new curriculum about the environment. Journalist training can result in more articles in the public media on environmental issues. Training in desktop publishing can lead to the publication of regular newsletters and attractive materials. In every case the training provides a supportive foundation for new behaviors that are instrumental in achieving societal change.

TRAINING AND PROFESSIONAL DEVELOPMENT

Although any educational activity that passes information from one to another may constitute "training," the workplace context of professional skill training developed when master craftsmen trained apprentices in the skills of their trade. By watching, copying, and then working with guidance, youngsters eventually became adept at new skills through practice. The apprenticeship strategy changed by necessity during the Industrial Revolution when large groups of laborers needed to learn new skills quickly. In these industries, work-force training undertaken by the management continued to follow the traditional "show, tell, do, check" format. Over the decades training has evolved into a more flexible enterprise that is more akin to professional development (Miller, 1987).

In many parts of the world, "training" and "professional development" are two terms for the same concept. The term "professional development" refers to a process through which individuals increase their knowledge and understanding and improve their skills, to perform better in their current positions. Learners have an opportunity to develop their own solutions to problems. They are given leeway to translate the information into their own situation. Echoing tenets of adult education and a philosophy of participation, this type of training is ideal for EE&C programs.

DESIGNING TRAINING FOR THE ADULT LEARNER

The three perspectives described below can be used to design a training program.

Adult Education

Educators who work with adults have developed the following list of characteristics of adult learners that can help trainers think about who will attend the program (Braus and Monroe, 1994):

Adult learners:
- ♦ Expect to be treated with respect and recognition
- ♦ Need the support of their peers in their learning
- ♦ Want practical solutions to real-life problems

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- ♦ Can reflect on, analyze, and share their own experiences
- ♦ Can be motivated by the possibility of fulfilling their personal needs and aspirations
- ♦ Are capable of making their own decisions and taking charge of their own development.

Trainers should expect their participants to be competent, interested, motivated individuals who may have as much to say as the leaders. Furthermore, not only are the participants skilled and knowledgeable, they may want to share their experiences and learn from the experiences of their colleagues. This exchange of information can be a key part of a training program. Creating an atmosphere that is conducive to helpful, informative, equitable exchange is the responsibility of the trainer.

Cognition

From a different professional perspective, cognitive psychologists might approach the task of professional development by considering how the human brain processes information. Their training program might be designed with the following principles in mind:

- ♦ People learn new information as it relates to what they already know.
- ♦ Practicing, applying, and discussing information helps create flexible mental models.
- ♦ Stories, examples, and role models help bridge the unknown.

The presentation of new information should be carefully orchestrated to resonate with learners and remind them of related concepts they already know. Establishing effective relationships helps insure the new information will be stored and recalled appropriately. One easy way to accomplish this feat is to make sure participants talk about their experiences and what they know.

New information can be presented through examples, models, case studies, analogies, stories, and other teaching methods that help learners build appropriate and functional mental models. By considering these techniques, the initial doctrine

of "let people talk" is farther refined into "engage people" in considering the real application of the new information. Such activities allow participants to work with and use the information, arriving at a more thorough and complete understanding of the concepts through this process.

Behavior Change

And finally, social psychologists who study behavior change would remind us that professional development is really behavior change—a process of suggesting and encouraging professionals to use new or adapted skills in their work. The following ideas may be important for a training program to consider from this perspective:

- ♦ Behaviors are based, in part, on the knowledge people have about the issue, about how to perform the new skill or behavior, and about the consequences of performing this behavior.
- ♦ People have relevant attitudes about the importance of this behavior in solving the problem, their ability to perform the behavior adequately, and the likelihood of their action in making a difference.
- ♦ A host of real and perceived barriers may stand in the way of the performance of this behavior.
- ♦ A variety of extrinsic motivators (policies, resources, legal threats, time inconvenience, etc.) and intrinsic motivators (building community, self-assurance, feeling frugal, etc.) may work to prevent or encourage this behavior.
- ♦ People care about what others think about the issue, the behavior, and their performance of this behavior; social norms are important.

Most training programs include knowledge and deliver that information in a way that motivates and through which positive attitudes are shared. But good training programs are designed to affect more components of the affective domain. Attitudes about competence, the ability to perform skills, and the perceptions of barriers to this behavior can also be shaped. Educators should consider

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the ways social norms can be supported or changed by using models, stories, opinion leaders, and shaping a community of like-minded participants into their own norm-producing group.

A COMPOSITE MODEL

These three perspectives provide relevant and overlapping suggestions. Because adults come to training programs with specific needs in mind, with a variety of relevant experiences, and with competing interests and demands, adult training should be different than an education program for youngsters. Because humans are information-processing organisms, it helps to think about how to best convey information so that it can be remembered and used. Because the goal of professional development is ultimately some type of change in behavior, a training program should be designed to reduce perceived barriers and support those indicators that are likely to produce a change.

Workshop facilitators can learn from each training experience and improve future programs through an evaluation program. Successful training programs include materials for supervisors and strategies to provide on-going support. The characteristics of adult learners and guidelines from other fields above can be translated into a model of training for facilitators:

1. Training programs should focus on the work-related issues that participants care about.
2. Participants should be involved in discussing ideas and sharing experiences during the training program.
3. Where possible and appropriate, participants should be engaged in practice.
4. Training programs should provide some choice and flexibility in the schedule.
5. Training programs should include opportunities for participants to record reactions and suggestions for improvements and measure program outcomes.
6. Training programs should consider the supervisors, the reward structure, and strategies to provide on-going support.

As simple as this list might sound, it contains profound suggestions. It is easy for a program manager to fill a training program with a lot of information that people ought to have. But a good trainer will carefully screen this information, assemble a variety of activities and discussion times for participants to use and adapt this information, and design a training program that achieves much more than sharing information. Participants should be able and willing to use that information to improve their work. All this can be achieved by using or adapting the following suggestions.

Focus on Relevant Work-related Issues

The topic, goal, and objectives of a professional development program should relate to the work of the participants. To discover what aspects of their work are most bothersome, interesting, or critical, conduct a needs assessment or a formative research activity (see Chapters 6 and 7). By surveying or interviewing potential participants or their supervisors, a trainer can develop a program that better targets the audience (see Box 10.1).

Involve Participants in Sharing Their Ideas

It is so important to engage participants in discussions that this aspect of a training program should never be jettisoned in favor of a shorter workshop or providing more information.

Training program planners hope participants will learn and accept new information, remember it, and use it. To help them understand new information and incorporate it into existing mental structures, workshop leaders should provide an opportunity for participants to express their ideas, to "try on" new concepts, and to relate the new information with their own experiences. It may be particularly important for the trainer to hear both what and how the participants' think about the new information. In addition, a participant's explanation may be more understandable than the trainer's.

Organizing discussion groups can help participants get to know each other. This can establish an

breaker" that begins to achieve this goal. A room arrangement that enables participants to see and speak with each other comfortably can help establish the appropriate atmosphere for the program.

Engaging participants in discussions changes the dynamics of the program by changing the focus of attention from the leader to the participants. This allows people to be responsible for their own learning, empowering them with the significant idea that they, too, have important information and ideas to share. This technique can be an effective tool in building competency for tackling a new skill (see Box 10.2).

Practice

While some topics are best discussed, others are best practiced. As suggested by the education theo-

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BOX 10.1

Designing Relevant Training

The Ministry of the Environment and Natural Resources (MARENA) is responsible for protected area management in Nicaragua. GreenCOM provided training and technical assistance to MARENA in environmental education and communication.

A series of training workshops were developed to reflect the needs expressed by MARENA. These included developing inter-institutional working relationships and specific skills such as the abilities to give an effective talk or presentation, encourage community participation, and develop interpretive materials. The training program was based on the basic aspects of the participants' job responsibilities—being able to define key management issues in the protected areas, developing educational strategies and materials to address them, and educating local community adults and children about these issues. The training program used a combination of presentations, group exercises, participant presentations, group problem solving, and practical application of the new concepts and skills.

The training program was designed to include two week-long intensive training workshops, a guided practicum to apply new skills and work together in groups, technical assistance in the field, and follow-up with each group to encourage the continued application of these skills.

BOX 10.2

Building a Team

Teams do not always form naturally; they must be nurtured. During training workshops in Nicaragua, teamwork was encouraged in a variety of ways. Individuals were identified by team on their nametag, and teams sat together throughout the training. Introductions, presentations, and icebreaker activities were conducted with teams. This practice encouraged leadership within the teams, responsibility among individuals, equitable power-sharing, and participatory decision making.

Each team was made of participants representing different institutions and both genders; activities were conducted to emphasize the importance of listening to everyone, coordinating efforts, and recognizing individual skills and contributions. Many participants commented in their evaluation that they had not realized the importance of team efforts, and while it wasn't always easy, they preferred to continue to practice these strategies in their work.

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atmosphere of collegiality and trust. Such an achievement can result in increased support and a stronger professional network that operates long after the conclusion of the training program. In some circumstances, it may be necessary to conduct exercises specifically to build a level of communication that allows groups to function. Most trainers establish the tone for the day with an "ice-

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ries of inquiry and discovery learning, when people of any age have an opportunity to physically work with the information or practice a skill, and particularly when the activity is designed so that they discover or reinforce concepts, learning occurs and the training is successful. We all remember much better what we have discovered and said ourselves than what others have told us (Hope and Timmel, 1984).

It is common to ask teachers in teacher-training workshops to participate in activities designed for students. This technique increases the teachers' familiarity with the new materials; it also engages the group and gives it shared experience. If the teachers also critique the activity, discuss how they might use it in their classroom, or analyze different outcomes for the discussion, they are investing in their ownership of the new curriculum. The chance to think with other teachers is often the greatest gift a workshop could give participants (see Box 10.3).

Conducting activities is also an ideal way to practice skills. Instead of simulations or role-playing, where some key elements of the skill may be artificial, use the real world for skill building. Not only are participants discovering and reinforcing concepts, but also they are simulating their work experience in the company and support of professionals they know and trust, with the safety net of trainers. The perceptions of "this is too hard" or "I'll never be able to do this" begin to evaporate as the group works through the activity. Skills that require time, or that should be done at each participant's work site may be embedded in a "practicum" experience, around which two sessions of the training are placed. The second training session then becomes an ideal opportunity to report on successes, compare experiences, and evaluate how the new practice could work better (see Box 10.4).

The purpose of most professional development activities is to change behavior, creating a new norm for that group of professionals. All the barriers that exist for individual behavior change operate at the group level, too. To the extent that a training program can help participants overcome

BOX 10.3
Training Activities

Workshop participants in Nicaragua applied the skills they learned in the training to their work sites, working together to develop environmental communication strategies. Some teams designed a survey, conducted observations, collected data, and interpreted those data at their sites to provide more insight into the management of their protected area. These studies helped participants focus on how local residents interact with the protected area and how their beliefs affect their actions. Participants collected valuable information about the residents' beliefs about water quality or collecting firewood, which added greatly to the development of interpretive messages.

Another practical exercise from the training workshop was drafting an interpretive plan for each protected area that encouraged individual as well as institutional collaboration. The development of these plans and the interpretive materials are monitored and supported by GreenCOM in such a way that the participants' important efforts are recognized.

those barriers, it will be successful. Practicing the new behavior is one way to solidify the new information and supportive attitudes about the change. It also enhances confidence and competence. With support and follow-up activities, participants may be well on their way to a new behavior.

Study tours are another way to physically engage participants while exposing them to new ideas and strategies. A great deal of information can be exchanged when participants actually visit and experience a new site. Prior to planning a new interpretive center at Silliman University, for example, GreenCOM conducted a study tour for four faculty members, allowing them to visit a variety of marine aquaria, nature centers, museums, and zoological parks that offer similar types of collections

and programs to their proposed facility. The experience engaged them in thinking broadly about the possibilities for the physical facility, the program, the operation, and the long-term funding. The "road trip" helped strengthen friendships and give them a common experience as well (see Box 10.5).

Offer Choices

Although it is helpful to conduct a thorough needs assessment of participants prior to a training program, it is difficult meet everyone's needs. By offering concurrent sessions, independent workstations, and choices in the program, two things happen: The participant is empowered to determine his/her own course of action, and the likelihood that something will appeal to everyone is increased.

If the program cannot accommodate concurrent sessions, it may be possible to offer the group a series of simple choices. For example, the time of the first break, the location of the bus pick-up, and the order of the group reports, are decisions that do not affect the program, but give participants a role in shaping the training to meet their needs (see Box 10.6).

Record Reactions, Seek Suggestions for Improvements, and Measure Outcomes

Evaluation is an important component of every GreenCOM activity. Through evaluation program managers begin to understand what worked and why. This information allows them to replicate their activity successfully, and share tips with others. Training programs offer three distinctly different evaluation opportunities.

Recording Reactions

During a training program and at its conclusion, participants should provide their reactions to the trainers. These three questions should be relatively easy to answer and quite helpful to program organizers:

1. What worked well; what did you like about the training?
2. What has not been helpful; what should be changed?

A training program is only as good as the results.

Study Tour Provides New Ideas and Experiences

Aselect group of Nicaraguan interpreters traveled to the University of Idaho to tour protected areas (i.e., national parks, city parks, private parks, and indigenous reserves) in the northwest U.S. and experience the various types of interpretation in these facilities. This study tour stimulated new ideas, techniques, programs, and materials that may be adapted to Nicaragua. It also helped develop a cohesive network of communication professionals among the group members.

On the trip back, the group visited El Salvador and met Salvadoran professionals who shared a similar study tour experience. The two groups toured protected areas that have developed interpretive strategies adapted from several North American ideas. This study tour and exchange was an important link to building regional expertise in environmental communication.

3. What suggestions do you have for the next training program; what changes should be made?

These questions can be used at the mid-point in the training to enable trainers to make corrections and modify the program as necessary. At the conclusion of the program, participants may take the time to carefully reflect on the advantages and disadvantages of each section of the workshop, and offer their unique perspective. Other questions may be added about the elements that most concern the trainers (e.g., feedback on the trainer's style or clarity, usefulness of materials, or room comfort.)

Seeking Guidance

In keeping with the philosophy of empowering professionals, trainers should also simply seek guidance, suggestions, and helpful advice from participants about redesigning the program to best suit their needs. When cultural norms prevent critically thinking about changing a program (either positive or negative), try to design an activity to collect the information. Asking small groups to design the next training program, and providing sessions or questions about the program, could generate a product that translates participants feelings about the program into a new agenda.

Measuring Outcomes

Finally, a training program is only as good as the results. It is important to measure and document the changes in participant's work performance that may be due to the training program. The original training program objectives should be helpful in isolating specific indicators of success that can be measured three to six months after the program (see Box 10.6).

Consider Supervisors, Reward Structures, and Strategies for Ongoing Support

The best training program may generate excited participants, but without a supportive structure when they return to their jobs, it may be impossible to sustain new skills and behaviors. Training programs must carefully consider how individuals will be able to perform differently. Should supervisors be trained along with employees? Should a critical mass of individuals from the same institution participate? What reward and incentive structure exists and can it be altered to reflect the new program?

If the existing structure is well-entrenched, a training program that puts participants at risk should be avoided. Primary teachers in Zimbabwe, for example, found enormous external barriers to teaching problem solving skills instead of the standard curriculum. Parents, administrators, and even students preferred the traditional textbook curriculum which assured a secondary education for successful youth. In such cases, a campaign aimed at parents and education ministers to consider educational reform might be possible. Until then few

Evaluating Workshops

I n Nicaragua, GreenCOM used a series of evaluation methods to determine what participants learned and how they applied their new skills. Clear objectives for each session help measure the degree to which participants met these expectations.

Participants completed evaluation forms after each workshop, commenting on the most useful sessions, most practical skills, what they learned, and how they expected to change their work as a result of the training. Logistical and technical details of the workshop were also evaluated on a quantitative scale to rate the quality of technical presentations, practical exercises, food, and lodging during the week.

Evaluation of the guided practicums allowed for self-evaluation as well as of the team. Each participant was asked to rate the difficulty of key tasks during the practicum and then reflect on why s/he thought it was difficult or easy, and the result of their personal and team efforts. In addition, pre- and post-tests allowed GreenCOM to measure specific knowledge gained and the ability to apply this knowledge. These data can be desegregated by team, gender, or institutional affiliation.

teachers will be able to overcome the forces resisting change and may even endanger their job status by pushing for it.

Ministerial approval, administrative support, release time from work, projects relevant to the job site, and funding for supplies and resources are certainly components of a supportive system that can be used to remind participants that their new skills will be rewarded. Training programs that can do more, however, are more likely to be successful. In El Salvador, for example, a training program for journalists was followed by a national award for the top environmental reporter (see Chapter 13).

Such a technique insured participation from the trainees and support from the media outlets. In Tanzania, an ongoing system of training programs offered an opportunity for the same people to reconvene several times over a year to exchange successes and concerns, using each other as a support network. Since many international development programs finish up and close down, they should try to leave behind a skilled base of program participants to carry on the changes (see Box 10.7).

El Salvador's National Teacher In-Service Program

E l Salvador's Ministry of Education knew it would take years for the new elementary curriculum to filter through the rural regions and be practiced by current teachers. To increase the likelihood of teachers using the new materials, it selected Master Schools throughout the nation to serve as a hub for 10-20 nearby schools. Ministry officials trained the Master Teachers at a regional in-service, and these teachers returned to their school s to train local teachers. Because the cycle was repeated over several years, master teachers became accustomed to their new role as trainers, and other teachers looked to the Master Schools as local innovators.

SUMMARY

A variety of resources have been developed to help educators, communicators, environmentalists, and others design and conduct training programs. UNESCO's International Environmental Education Programme publishes several manuals for educators, and other international agencies produce guides and technical documents.

A good training program is a targeted professional development experience for the participants.

It builds a climate of trust and encouragement through engaging activities and discussions. It allows participants to explore new concepts and practice skills relevant to their work. It allows participants to make choices about the structure of the program or which skills they will practice. It establishes a supportive network of colleagues who can provide assistance after the training program has concluded and seeks ways to obtain administrative support as well. It is evaluated.

Professional development activities such as training are practical and results-oriented. They fail when they are extremely long-term, when they are not job-related, when they are not specific in their outcomes, when they are not evaluated, or when they do not take into account strong workplace forces to maintain the status quo.

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