

Training for Computer Trainers

Learn how a team strategy for courseware development can benefit train-the-trainer programs.

By KAREN OVERFIELD

Why don't we have a course on graphics for the personal computer? How long before the dBASE III Plus courses will be available? Are you ever going to offer a LOTUS Macros course? How about putting together a computer literacy course? Make sure that it is tailored to the vice president and director level; we want to deliver it at the end of the month.

Do these questions sound familiar to you?

During the last few years, increased use of departmental computing, proliferation of personal computers, popularity of "off-the-shelf" software packages, and continued technological advances within the information processing industry have kept information technology trainers on their toes. Trainers must develop and deliver training programs "yesterday," while at the same time constantly update existing programs and keep them current with new software and changes in demand.

Training products must meet the needs, requirements, and learning styles of adult learners, but information technology training usually encompasses many different areas: operations, programming, systems analysis, project management, office automation, technical updates, end-user computing, and in-house developed systems and applications. Information technology training certainly is not boring!

Need for train-the-trainer programs

While aggressively trying to satisfy diverse training demands, information technology trainers sometimes neglect one criti-

cal area upon which the entire training program hinges—training for trainers.

There isn't enough time to develop the program. You need to develop a Display-Write 3 course first, and your top priority is getting out the course description booklet. But you can't justify the training with hard-dollar benefits. These common rationalizations are not only true, they're valid.

At times, however, you have to stand back and remember that people need basic skills to perform complex operations. Would you conduct an introduction to the PC class without ever demonstrating how to turn on the PC, or a LOTUS class without explaining the difference between a row and a column or what a cell is? Yet, this is often what we do to our trainers and course developers. We expect these people to know intuitively how adults learn, how to utilize teaching techniques, how to build a course, how to instruct peers, how to use visual aids, how to determine course objectives.

For the most part, those of us in information technology training came in through the "back door." Some of us had a background in education, information technology processing, human resources, or other areas. Often, if you only vaguely knew a package, you were the "local expert" and given the task of training.

Instructional design requires skills not necessarily found in other areas of information technology processing. Systems and application development and product testing require technical skills; developing training curricula require writing skills; delivering training requires interpersonal relations. More often than not, people with good interpersonal skills may not write well or have ability in the technical area. Yet all of these skills and more are necessary for course development.

Thus, information technology trainers traditionally have faced two obstacles: lack

of training and matching skills to the job task. No wonder training may have fallen short of what trainees expected.

Courseware development teams

The information systems department (ISD) at Pittsburgh-based Mobay Corporation uses a project-team approach to overcome the problem of matching trainers' skills to the task of developing training. This approach has several benefits:

- Those who use the program have ownership of it.
- A great deal of team building takes place, and there is a wider range of experience the work group can draw from.
- It takes less time to prepare a course for delivery.
- The learning curve for curriculum development is reduced.
- Higher quality programs result from the team approach.

When a course is identified for development, a project team assembles, usually consisting of an instructional designer, product expert, and trainer. The instructional designer acts as project team leader, guides the development of the course, and ensures that principles of instructional design are followed. The product expert is the technical guru who answers questions on the product, tells what it can or can't do, and how it works. The trainer, most likely, will deliver the course once it is developed and provide user support. It is the trainer's responsibility to gear courseware to users and to Mobay's environment.

Actual team makeup depends on the product, the project's priority, and availability of human resources. In some cases the product expert is not a member of the team but serves as a consultant on an as-needed basis. In other instances the product expert and trainer are the same person. At other times the team may consist of two trainers and an instructional designer who share the function of product expert. Although team composition is flexible, someone has to cover each role in some way.

The team follows a course development methodology that identifies the phases of curriculum design. The team must complete each phase before advancing to the next. In addition, established standards assure that in-house developed courseware is not only instructor-independent but also consistent.

All team members discuss and review each phase of course development, and when a phase is completed each team member signs off. Actual writing of the course is handled in a variety of ways depending on the particular project team.

Overfield is project leader for training and documentation in the information systems department of Mobay Corporation in Pittsburgh, Pennsylvania.

One member may write all of the script with other members acting as reviewers. Or several members may share writing, reviewing each other's work as it progresses.

At each "sign off" phase, the team prepares a presentation and meets with management to discuss progress, report on the project's status, and plan for completion.

Training environment

While the team concept for course development helps to resolve one obstacle, the question of what a train-the-trainer workshop should include remains. Each organization and training unit has its own needs and requirements; however, some common elements do exist.

Before beginning to design a train-the-trainer program, identify your training environment. Ask the following questions:

- Who has responsibility for training?
- Is training a sole job function, or is it part of the overall job?
- What are the trainers' backgrounds and experiences?
- For what types of training are you responsible?
- What medium is used for training?
- Who is the audience?
- What is the audience's background and experience?
- What are the training goals and objectives?
- What is the frequency of training?
- What training facilities are available?

At Mobay the user services center conducts instructor-led training and support for end users. This group designs, develops, and delivers the training on supported products, which include office automation and end-user computing software packages for both personal computers and mainframes. User self-sufficiency is a primary objective.

Instructors use two training rooms, one with four mainframe terminals, the other with 12 personal computers. This room accommodates one class of 12 or two classes with eight and four personal computers each. Screen image projection is available in the personal computer training room. Our objective is to use the facilities to maximum advantage.

Members of the user services center have a wide range of backgrounds, experiences, and skill levels. The organization has had terminals for some time, but the personal computer has gained popularity in recent years. Some of our trainees, therefore, are new users; others have been using computers for a number of years or are switching from mainframe terminals to personal computers. Our job is to present

technical knowledge to nontechnical users using appropriate methods and jargon-free language.

Define objectives

Once you identify the training environment, you have to define your objectives. We chose a workshop format to give hands-on experience and stimulate interaction. We then chose the skills we wanted our trainers to have after completing the workshop. We wanted them to be able to

- conduct a task analysis;
- identify skill and performance level needs;
- identify prerequisites for training;
- identify and write objectives;
- develop appropriate sequence for learning;
- understand adult learning styles;
- evaluate and select training techniques;
- convert product-application experience into logical, organized learning programs;
- improve communications skills;
- develop easy-to-follow presentation skills;
- recognize learner problems and take appropriate action.

Finding a program

Your next step is to determine whether existing programs meet your needs and evaluate them for cost effectiveness. Several options are available. Colleges, universities, and consulting firms offer train-the-trainer workshops and seminars at various locations and dates throughout the year. Length

ranges from one to three days, and registration discounts often are available for several people attending from one organization. If you have a large enough group, the vendor might conduct a special session for your organization. This type of session can take place at your convenience on site or locally. Another option is to participate in a consortium through a professional group or contact other local organizations with an interest in this type of training.

If established courses are inappropriate, an outside consulting firm can tailor a program to your needs. The costs involved depend on the length of the training, amount of tailoring, rewrites necessary, class size, facilities available, location, and travel expenses.

Another option is to design, develop, and implement the program in-house. We were fortunate to locate a person within the corporation who conducts similar workshops for safety and maintenance supervisors. By working with this person, we designed a program that exactly fit our needs at a fraction of the cost of initial development or hiring an outside firm.

The workshop ran four consecutive days. The first session was a half day; the second, a full day; the third, a half day with time for individual help in the afternoon; and the last, a half day. The primary facilitator was the course developer; the cofacilitator, a trainer from user services, coordinated the workshop. Using cofacilitators ensured that course materials addressed our unique job tasks and gave participants more individualized attention.

A corporate training facility separate from the work area made a suitable learning environment, but because the workshop was conducted on site, travel expenses were kept to a minimum, everyone in the unit could attend, and people who work together could participate in training at the same time. To build better working relationships and foster team building within our department and with sister organizations, we opened up the workshop to other units within ISD as well as to another company within the parent organization. This was a first-time experience in crossing corporate-company boundaries.

Elements of the program

After determining overall workshop objectives and training format, you are ready to begin the design phase. It's time to identify specific elements to be presented, define session objectives, and develop the course. At this stage consider acceptable performance outcomes and how to measure them. Organize elements of the work-

Figure 1—Outline of Mobay's workshop

Purpose and Needs

- Group building
- Knowing/Doing
- Brainstorming
- Personal motivation
- Training responsibilities

Mechanics of Building a Session

- Planning
- Developing objectives
- Differences in training aids, supplies, and equipment
- Needs, task, and zone analysis
- Testing

Stand-Up Skills

- Overcoming fears
- Attributes of successful instructors
- Adult learning principles
- Training methods
- Media
- Presentation techniques

shop in a logical sequence of manageable "learning chunks," and incorporate meaningful class activities that reinforce learning into the framework of the workshop.

The outline for our train-the-trainer workshop is shown in Figure 1. Benefits of our workshop include the following:

- team spirit among participants;
- common knowledge basis;
- shared experiences;
- quality assurance for instructional integrity;
- opportunities to know coworkers better;
- empathy for fellow workers;
- staff recognition of management's concern for individual professional development.

Through in-house design, development, and delivery, we not only tailored the training but used the most cost-effective method.

Justifying the program

Today's organizations are trying to cut expenses and increase worker productivity. Doing it right the first time has become a universal motto; cost justification and benefit identification have become a way of life. Most corporations scrutinize every program

with an eye to cutting those deemed unnecessary, and some companies use zero-based accounting. How do you prove hard dollar savings for intangible benefits? How do you measure productivity and learning gains for training?

Unfortunately, course evaluations often are "smile sheets." Trainees tend to give good marks when they are asked to hand in the evaluations to the instructor immediately after the class. Sometimes the wording of questions is biased in the trainer's favor, or trainers only ask questions that they know will receive good ratings.

One way to measure dollar benefits is through the number of rewrites a course needs or the development hours spent. Measuring either of these components and the supporting historical information technology will give you a basis to show or predict productivity improvements. Keep in mind, though, that the nature of an instructor-led course often allows you to rewrite a course each time you present it and to develop it "as you deliver it." Consider these factors in your calculations.

Shorter learning curves for those who develop courses provide another way to

justify the training. Compare the amount of time you needed to develop your first course without training versus the development time you would need if you completed a train-the-trainer program; this comparison should show a valid reduction in learning curve.

Effective training programs increase user and trainer productivity. While quality course design takes time, both users and trainers spend more hours in the actual delivery of the training. If the classes are ineffective, this time is virtually wasted and opportunities for productivity gains are missed.

Reduction in the course time is another justification factor. By tailoring training to organizational requirements, you can reduce the number of contact hours, thus saving your company money. And by implementing quality training programs, you may reduce the number of hours your staff must spend supporting users.

Training for trainers is fundamental. And with bottom-line justification for it, there's no reason to put it off any longer.

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