Increasing Corporate Productivity with Decreasing Training Dollars
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The challenge: Help your coworkers increase their on-the-job productivity through training.

The obstacle: Your training budget just got cut—again.

The solution: Select lower cost training products that meet your needs and your quality standards.

Introduction
Training is no longer a luxury within the corporate environment; it has become a necessity. Many companies are no longer hiring the job skills they need, but are training existing employees to help meet new corporate goals. The recession of 1991 also brought budget cuts into play, and cutting the training budget was easier than cutting salaries. Many training coordinators were faced with a dilemma—train more people with fewer dollars. This situation forced coordinators to come up with creative solutions.

Let’s examine the thought process many coordinators have gone through in the past year or so. For the purposes of comparison, suppose we want to train 15 people in an introductory course on how to use the SAS System.

Training Options
When many people think of training, they think of traditional classroom instruction. This option, however, can be the most expensive. If you send 15 employees to a public seminar led by a vendor, the training course will probably cost an average of $150-200 per person per day. Since most courses last at least three days, you can expect to pay $6,750-9,000 in course registration fees. If the students must travel to the seminar location and stay overnight, you may pay as much as $7,500-15,000 in travel expenses ($500-1,000 per person), bringing your total cost to $14,250-24,000.

Another option for 15 students is to make arrangements with the vendor to bring the course on-site. Fees are typically in the range of $4,000-7,000 for three days of instruction. If you also have to pay travel expenses for the instructor, the total bill increases to $4,500-8,000.

An alternative to on-site instruction is consortium training, where a group of companies with a common training need join together to sponsor a vendor’s course locally. One company hosts the course and usually receives one or two free seats in exchange for hosting. The costs are usually in the same range as public seminars, but you save on travel expenses since the training is local.

With those kinds of numbers, you may consider writing your own course if you know the subject and have the communication skills. This is not a low-cost solution either. Suppose you want 15 hours of instruction, and your current annual salary is $30,000. A course development rule of thumb is 10-40 hours of development time for each hour of instruction. You’ll be spending 150-600 hours developing the course before you can teach it; the development costs are $2,145-8,580—and that’s just salary. Other costs to consider are the development costs of visual aids such as overhead transparencies to guide your classroom discussion and printing costs for student materials. Transparencies can cost as much as a dollar per sheet, and you should calculate 7¢ per page for printed materials. Fifteen hours of instruction can require 300-500 printed pages or transparencies, adding considerably to your development costs.
A trainer's kit can be licensed from a vendor to supply you with cost-effective training materials. Typically these kits include visual aids to guide your classroom presentation, an instructor's guide, and materials for 10-20 students. Fees for trainer's kits are about $2,500-$3,000 for an annual license. You can usually purchase additional sets of student materials from the vendor for $25-50 per set, so you can use the kit to train any number of students. Trainer's kits can be a very economical solution to today's training dilemma, but require that you (or someone at your company) be the instructor. Suppose no one has the necessary communication skills, what then?

Feel discouraged? Don't--there are two self-paced training options that do not have these high price tags: video- and computer-based courses.

You can license video- and computer-based training from a vendor, usually on an annual fee basis. Costs for a course in either medium fall in the range of $1,500-$3,000 with annual renewals costing less. This may be the total of your out-of-pocket costs, or you may have to pay a nominal fee to buy sets of student materials from the vendor. Again, as when you use trainer's kits, you can train as many students as needed during your license period.

For comparison, consider these costs per student when training 15 students in SAS Institute's Fundamentals of the SAS System course, available in all options previously discussed. The CBT costs are based on a class E machine (such as an IBM+ model 3084 or a VAX 6240).

<table>
<thead>
<tr>
<th>Training Option</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Public seminar with travel</td>
<td>$1,400</td>
</tr>
<tr>
<td>Public seminar without travel</td>
<td>600</td>
</tr>
<tr>
<td>In-house written course</td>
<td>500</td>
</tr>
<tr>
<td>Consortium course</td>
<td>450</td>
</tr>
<tr>
<td>On-site course</td>
<td>415</td>
</tr>
<tr>
<td>Trainer's kit</td>
<td>195</td>
</tr>
<tr>
<td>Computer-based course (average)</td>
<td>175</td>
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<tr>
<td>Video-based course</td>
<td>150</td>
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</tbody>
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**Selecting Self-Paced Training**

Now that we've established the economics of selecting video- or computer-based training, let's look at other advantages you receive when you select these options and some creative ways of using them in your training plans.

**Either is a good choice if...**

- you need training for many users
- you have an ongoing demand for the same type of training rather than a large group all at once
- you want high quality training that is updated as the software is enhanced
- trainees want to learn at their own pace rather than being forced to maintain a group pace
- some trainees are intimidated by a classroom setting
- you want a library or curriculum of courses
- your trainees prefer a "see and remember" approach to training
- you have limited travel funds
- you want training that's always available and easy for users to reference after completing the "official" course.

One of the assumptions made earlier was that we had 15 students who needed the same training at the same time. That is not often the case. Each individual has his or her own timetable for when training is appropriate. Self-paced training is always available whenever it's needed. Each student moves through the training at his or her own pace; can repeat, review, or skip sections at will; and completes as much or as little of the course as currently needed. The student can return to the course later for additional training.

**Select computer-based training if...**

- you have users at remote sites with access to a central computer system on which the courses can be installed
- you want complete interaction between the learner and the software
- you want to help new users get over the fear of using the computer
- you want to document the training taken by students.
CBT courses can be especially useful in these situations. Many companies already have a central computer facility with remote access from regional offices; installing a CBT course on such a computer makes training readily available to all employees. CBT courses can actually help those who have "computer phobia." Since it is usually quite simple to move through CBT courses—pressing function keys, making menu selections, and issuing simple commands—the phobic student soon sees that pressing the wrong key will not result in destroying the entire computer system.

Consider an alternative to CBT if...

- CPU time is a prime concern at your site since almost all of the training time is spent on the computer system.

Select video-based training if...

- you want to help new users get over the fear of using the computer
- you have the equipment on hand (or if not, it is easily obtainable)
- students want to be able to complete some of the training at home.

Video-based courses offer the nice option that some of the training can be completed away from the office. Courses usually consist of an informational videotape segment, summary materials and test questions in a workbook, and computer exercises. Only the computer exercises need be completed in an office environment (unless the trainee can access the computer from some other location).

Video courses are also good choices for trainees with computer phobia since the trainee progresses through some of the course material in very familiar ways (television and workbooks) before having to actually use the computer system.

Consider an alternative to video if...

- trainees are located at different geographic locations and you don't want to license multiple copies of the course
- you don't want to ship the video course to different locations.

Common Objections to Self-Paced Training

Most people working today as training coordinators grew up during a time when learning meant a traditional classroom setting led by a teacher. They may even think that classroom instruction is the "right" way to provide training. Whenever self-paced training is suggested as an option, there are five objections that are commonly offered. Let's consider each one.

"But you can't ask a question!"

This is one of the most common objections stated about video- and computer-based courses. As with any well-designed training, self-paced courses should anticipate questions students might ask and incorporate the answers into the course. However, students may occasionally have questions not anticipated by the course designer, may need more clarification, or your site may have customized the software in some way. Two ways you can address these issues are:

- provide a readily-accessible tutor for students
- hold group training sessions.

Pair each student with an experienced SAS user who is willing to answer questions that may arise. Where do you find volunteers? Ask at your in-house SAS user group meeting. Perhaps SAS users who are in the same department as the trainee will be willing to serve as tutors. You may also have a Help Desk staff that can serve as tutors.

Or, you can hold group training sessions. Video- and computer-based courses are usually designed in modules or lessons, each lasting about an hour. Get several trainees together with a tutor, have them take a lesson, discuss the content and any site-specific issues, and then complete the exercises.
Another alternative is to schedule a group session after students have completed a lesson on their own. This provides an excellent environment for the students to interact and reinforce the training, and gives you the opportunity to make note of special considerations for your site.

"Students don’t complete self-paced training."

Another common concern is that students may not complete self-paced training. State-of-the-art computer-based training offers a tracking system that can generate reports on who is using computer-based courses, how often the course is accessed, and with what results. You can even set a mastery level to make sure students "pass" the course. These reports provide tangible evidence of how computer-based training is working at your site.

You can create a similar, although manual, tracking system for video-based training, by checking videotapes in and out of your library to individual trainees and having them complete standard computing assignments for each lesson.

Students can also demonstrate their degree of mastery in group discussions moderated by an expert on each topic as training is completed. Again, look to your in-house users group for volunteers to lead the discussions.

"Self-paced training is not site-specific."

You can customize vendor training to your environment. View or scan the training and make notes that will be helpful to your students. (Or, delegate this task to a coworker who is familiar with the course content.) Note any sections you want your students to skip, and any areas that need modification to suit your site. Use your notes to produce a booklet that parallels the training. Or, in the case of computer-based courses, develop online lessons to accompany the course.

You can also develop datasets that contain data specific to your site or type of activity. Use these sample datasets in workshops you add to the standard ones supplied with the course.

Computer- or video-based instruction can also be used in conjunction with an instructor. Use the self-paced training to convey key information, with comments from the speaker about site-specific issues.

"Self-paced training doesn’t hold students’ interest."

Take a look at SAS Institute’s self-paced training products! SAS/TUTOR® software, our family of online training products, is designed to be highly interactive and responsive to the student. Our award-winning video-based training is lively and entertaining while effectively presenting instruction.

"Students are interrupted when taking courses in their own offices."

When interruption is a factor in self-paced training, several alternatives exist. If your site has the facilities, move the student to a neutral area: another office, a conference room, or your site’s training center. Conduct group training in an area away from the students’ normal workplace. If the student must remain in the office, suggest closing the door and forwarding the telephone. Place a "Training—Please Do Not Disturb" sign on the door. Provide a notepad for messages to be left outside the training area. Encourage students to set aside a specific time each day for completing a lesson. With video training, the student has the option of taking the tapes home to view.

Conclusion

The challenge of providing high quality training with diminishing training dollars is not an impossible one. Although classroom instruction has been the traditional method of choice, effective and affordable alternatives exist and should be considered. In this presentation, you have learned about several of these alternatives along with their merits and limitations. With this knowledge, you can confidently explore alternative training