Training Success Stories

Here are some real-life case studies of best practices in leading companies, elected by the Benchmarking Forum of the American Society for Training and Development. Technology-based and performance-oriented, these practices herald common training approaches for the near future.

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ARE COMPANIES really using technology to deliver training? If so, how? Which techniques are successful in developing knowledge-based training for experts? How can my training group get involved in our company's reengineering effort—before people come to us for training?

These are hard, but important, questions for training professionals. The search for new techniques is a constant activity. Competition, downsizing, and reorganization continue to affect organizations, including training departments. As they do more with less, practitioners seek ideas for managing change while still providing high-quality instruction.

Here are some success stories from companies that are members of the American Society for Training and Development Benchmarking Forum—their best and most successful training practices, as well as the methods they use to identify such practices.

In 1995, the Benchmarking Forum selected 14 "best or successful practices" from its 48 members. The selections are wide-ranging—from electronic training delivery to successful reorganization of a training department. Most fall into the new-practice category; many reflect current trends in the training field.

Aetna Life & Casualty: Redesigning the Education Department. Most training professionals know that they need to link their departments and programs more closely with the businesses they support, especially in such highly competitive and rapidly changing industries as health care. The Forum recognized the education department at Aetna Health Plans for its redesign of the department and for the training staff's contribution to the organization's overall reengineering effort.

In the past, Aetna's education department consisted of managers who supervised teams of training specialists assigned to major internal-customer groups. Because staff members focused on one area, they tended to develop a deep knowledge of that area without gaining more global understanding of the business. This customer alignment also needed to be adjusted each time that the business reorganized. So, the department embarked on a large-scale redesign of the home-office training unit.

Each staff member selected a team on which to participate based on one of four conceptual

Illustration by Robert Pastrana

models.The teams had six weeks to develop a proposal that expanded the conceptual model into a working design. Each team presented its ideas at an all-staff meeting; management selected the winning ideas to create a new structure for the department.

The redesigned department—which includes innovations proposed by all of the teams—is flatter and now run by a smaller team of managers rather than many single manager-led teams. It's structured around business needs, in line with Aetna's business plan. The new structure emphasizes the development of multiskilled educators instead of training specialists assigned to a specific business group. It also includes the following elements:

- a 360-degree-feedback review process
- an internal network of coaches
- a resource-allocation team
- a commitment to the ongoing development of staff members
- project managers with increased responsibility and customer exposure.

The new structure has met Aetna's expectations: strategic positioning for organizational changes; increased skill levels of staff members in the education department; and more dispersed leadership among training staff members, who have shown an increased sense of ownership for their work. In addition, productivity and quality levels are higher. There has also been an increase in information sharing and employee-development opportunities. The cost of the redesign was minimal, and educational services weren't interrupted.

The education department has also changed the way it does business. For example, it formed a partnership with the customer administration department during the planning stages of the reengineering process. Educators worked with business process specialists to conduct a needs analysis and then developed the training. The training team also worked with human resources to create and implement a change-management plan. These partnerships enabled the training and education department to proactively assess training needs upfront during a business change, which minimized the need to revise training materials. The education department also gained visibility and set a precedent for future partnerships.

Aetna's Health Plans Training and Education department's best practices clearly demonstrate the success of developing flexible, multiskilled educators, that training is a key factor in successful business transitions, and that the training department must be involved closely with the business groups it supports.

Andersen Worldwide: Concept Mapping and Pattern Matching. Training professionals frequently seek better methods for clarifying training needs upfront and evaluating training outcomes later. Andersen's Center for Professional Education uses concept mapping and pattern matching to clarify expected employee competencies and evaluate the effectiveness of training designed to develop the competencies. In this context, the purpose of concept mapping is to paint a clear picture of training expectations and priorities by explicitly integrating multiple stakeholder views. After the training is complete, the expectations are compared to the outcomes.

> ■ *Concept mapping shows the relative importance of each competency area* ■

For many trainers, it's a standard practice to ask stakeholders to identify and prioritize their expectations through brainstorming and negotiation. What's unique about concept mapping and pattern matching are the sophisticated statistical techniques that enable the integration of input from different people. The result is an easy-to-understand map that shows the relative importance of each competency area. This map is the foundation that guides the training design, development, implementation, and evaluation. Andersen practitioners have used this method to compare how well the learning and performance outcomes of training are meeting the initial expectations. Through the use of concept mapping and pattern matching, Andersen has advanced the increasingly popular notion of using these outcome measures to assess "return on expectations," or ROE.

The Boeing Company: Knowledge Modeling. Most training professionals find it challenging to convey complex information and promote knowledge-based skills. Traditionally, training staffs have used job-task analyses to develop course content. But task analyses are inadequate for jobs or tasks with heavy cognitive components—in other words, tasks that experts think about a lot before they act.

The Forum recognized Boeing for meeting the unique training needs of its many knowledge-based employees through techniques borrowed from the field of artificial intelligence. These techniques shortened the nine-month learning curve for new users of complex computer-aided drafting and modeling software, known as CAD-CAM. Boeing now uses the Knowledge Analysis and Design Support methodology (KADS) to identify and transfer the "thinking" of expert CAD-CAM users. KADS makes nonobservable thinking processes explicit.

Boeing's KADS analysts interviewed and observed expert users in order to identify their thinking processes for solving problems, dealing with uncertainty, and minimizing risks. Then, the analysts worked with course developers to identify learning objectives and to integrate the expert CAD-CAM practices into a training curriculum. Though KADS was originally developed to build automated knowledge-based systems, Boeing has also used it effectively in instructional design, reference documentation, and process improvement.

In a field comparison of 70 engineers trained in the expert CAD-CAM practices and 30 untrained engineers, the benefits of the new approach became evident. All of the trained engineers were able to perform a construction task; less than half of the untrained engineers could. In addition, the slowest time for the task among the trained engineers was equal to the fastest time among the untrained engineers. The conservative estimate of return on investment for one program was 4,000 percent per year—based on less productive time lost among new

users, less inefficiency among current users, reduced errors in data, and less demand on computing resources due to inefficient data.

Digital Equipment Corporation: Technology Solutions. The role of advanced technology and alternative delivery systems are of growing interest to training professionals. In this spirit, the Benchmarking Forum recognized Digital Equipment for several practices that are among the leading-edge applications of communications technology found in training. These practices provide a window on the future and highlight the potential of the Internet and other computer networks for training and performance support.

Two of Digital's best practices demonstrate the benefits of using the World Wide Web to deliver training. One, Digital currently maintains its curriculum catalog on the Web for instant access to employees located anywhere in the world. This on-line system has increased course enrollment because of the easy access, search capability, and user-friendly graphical interface.

In addition, the hypertext format and graphics capability of the Web enables Digital to provide the following:

- sequential curriculum maps
- pre-course skill checks
- links to contacts within the training department for course information, the course-enrollment system, and education resources outside of Digital.

Digital also uses the Web to deliver a basic finance course for managers. In the past, internal instructors taught the course, which includes such topics as interpreting a balance sheet and using ratios. But lately, Digital has had fewer finance employees available to instruct. The Web enables Digital to offer a self-paced, computer-based course that employees can access at their convenience from any PC system, eliminating travel expenses and time away from work.

The course consists of eight modules, including pre-module self-assessments, exercises, review questions, documentation, and real-life examples from Digital's annual report. The course's reference guides provide just-in-time, just-what-you-need resources. Web delivery also offers the unique benefit of being able to update the course instantly from a single site without having to recall diskettes.

Digital estimates that the cost of course conversion from paper-based to electronic will be recouped through the elimination of paper, reproduction, postage, and instructor expenses. Cost-control efforts also led to the development of an alternative method for delivering hands-on training to technicians who service Digital's complex computer products. Like many companies, Digital has reduced expenditures for capital equipment and travel in recent years, creating instead a centralized location for electronic delivery—a remote-access lab with various hardware and software accessible in real time from sites around the world. Users at remote sites also receive either lecture material or training videos. This approach provides technicians with hands-on experience working with complex computer products and network environments. In fact, the training system uses the actual technology they work with, as well as built-in simulations and exercises. A full-time administrator is available online to monitor sessions and answer trainees' questions. As network technologies, the Internet, and video-broadcasting techniques continue to advance, it will be easier, faster, and more cost-effective to implement these approaches.

Digital's most versatile technology application was developed by the learning-and-development arm of its customer-services department, which serves 20,000 employees who install, maintain, and service thousands of Digital's and other suppliers' products worldwide. With so many products, technicians often have to provide service to a customer without having complete or up-to-date information for diagnosis and repair. So, the department developed the Multivendor Customer-Service Learning Utility to provide access to and retrieval of training and documentation for technicians whenever and wherever they need it.

The MCS Learning Utility is an electronic-delivery system with Web access through high-speed modems and multiple servers. Using a "search engine," course maps, and modular outlines, technicians can select training courses and documentation and then download them to a laptop. The system also provides handbooks, reference guides, schematic diagrams, and simulations. With the MCS Learning Utility, Digital anticipates improvements in technicians' productivity and skills, as well as reduced training costs.

Tektronix Education Consortium: Partnering. Shrinking resources are a common phenomenon in many training departments. Several technology-based businesses in the Portland, Oregon area have been working together to broaden educational opportunities for their employees. Tektronix joined with Sequent, Intel, Wacker-Siltronic, Hewlett-Packard, Automated Data Processing, and Mentor Graphics to seek inter-company opportunities for meeting shared training needs. The companies' training managers meet monthly to discuss ways to

CALL FOR BEST PRACTICE NOMINATIONS

The ASTD Benchmarking Forum has now opened its Best/Successful Practice selection process to ASTD members and the general public. If you know of a success story in training and workforce development, please nominate the practice as a Best/Successful Practice to be recognized at the 1997 ASTD International Conference and Exposition.

A completed questionnaire which details real-world examples of training practices and measures of success will be required for each nomination. The Best/Successful Practice nomination packet contains all relevant details including categories of submission, selection criteria, and timelines. Please call Lisa Lucadamo at 703/683-8154 to request a Best/Successful Practice nomination packet.

WHAT MAKES A BEST PRACTICE?

There are no standard methods or published criteria for identifying and evaluating practices as being the "best." The search for best practices is itself a new practice. As we learn from experience, the methods will continue to evolve and improve.

ASTD's Benchmarking Forum aims to identify the best practices in training, broadening the term "best practices" to "best and successful practices." The term "best" implies that an ultimate criterion exists against which all practices are judged, that only one practice can be the best, and that it's applicable to all organizations. Based on the Forum's research, practices that are effective in one organization don't necessary work in another. And if only one practice is judged best, equally effective practices may be eliminated unfairly.

To select best and successful practices, the Forum invites member companies to complete a narrative questionnaire using a modification of the Critical Incident Technique. Respondents give real-world examples of processes, methods, activities, and techniques that have resulted in effective performance. The questionnaire helps define the focus, criteria, and context of a practice, and provides information about the incidents that led to adopting the practice.

The questionnaire is structured as follows:

- purpose, aim, and background of the practice
- context, meaning when and where the practice was adopted
- incident, including a description of the processes, methods, and techniques, as well as an explanation of what makes this practice different from others
- impact and outcomes, including a description of the indicators and measures of results, how the practice supported goals, the duration of its effect, and the lessons learned.

This format provides a consistent framework for all member companies to nominate their training practices. Forum members can submit practices in two categories:

- proven practices that have been implemented successfully and that demonstrate positive, measurable results
- new practices that are innovations planned for the near future or are in the early stages of implementation.

New practices reflect the application of new training trends, though they often lack measured outcomes. Typically, new-practice nominations anticipate the practice's affect and how it will be measured. The aim is to introduce innovative, often untested, practices and to follow their success over time. Companies that nominate new practices later submit follow-up information. The selection criteria, which reflect the overall goals and interests of Forum members, help ensure that the practices are unique and innovative and that they expand the thinking about both the practices and the role of training. The criteria for new-practice and proven nominations include the following questions:

- How has this practice shown measurable results and success departmentally and organizationally?
- What can Forum members learn from this practice?
- How will the practice transfer to other organizations?
- Does the practice reflect a current trend or issues that are of interest to the Forum as a whole?

Twice yearly, a review panel made up of ASTD and Forum members evaluates submissions according to the criteria. There's no limit to the number of practices that can be selected as a best or successful practice.

pool their resources and to expand the availability and content of their courses cost-effectively.

This consortium led to the creation of the Regional Workforce Training Center, which secured several state grants to promote Portland's economic development. The center has also improved educational opportunities for employees of the consortium companies. Because the consortium shares internal courses and combines resources for supplier-provided training, Tektronix has been able to expand its course offerings and cancel fewer classes due to underenrollment.

Texas Instruments: Automated Evaluation. Training professionals are frequently asked to document the long-term outcomes of their training programs. But it's difficult to obtain feedback from participants after they've returned to their jobs. Due to cost and time constraints, this step is often skipped. So, Texas Instruments developed an automated e-mail survey system to obtain feedback from participants for course managers.

In the past at TI, the evaluation of training transfer was a nonstandardized process that was both time- and labor-intensive. Now, the automated system enables course managers to register courses online for evaluation. The system sends an e-mail message to all participants 90 days after they complete a course asking them to fill out a short questionnaire. The seven questions, which can be customized, garner information about skills transfer to on-the-job performance. The responses are recorded online, and the results are compiled in a database that course managers can reference.

The Automated Evaluation Project has increased the use of evaluations, reduced cycle time for data collection, and provided a standard measure for evaluating the transfer of skills and behavior to the job. Texas Instruments estimates that it will experience significant savings in labor costs to conduct evaluations. It has already seen improvements in both the quantity and quality of participants' feedback.

Special-interest practices

The Forum also selected several practices that reflect HR-management issues. Four focus on assessing employees' skill levels and the skill requirements for jobs and the efforts to close skill "gaps": differences between the required and actual skill levels. All of the practices aim to improve performance of the workforce.

Allstate Insurance Company: Task and Skill Profiles. In 1989, Allstate reorganized several processing centers around the country into three data-management centers. Task and skill profiles were used to assess the skills of the employees in those locations to match their existing skills to the skills required in the new environment and to develop learning agreements to bring them up to the required levels. This process resulted in the closure of hundreds of skill gaps and enabled every employee in those three centers to transition to their new roles with minimal impact on productivity. This success led to the implementation (70 percent complete) of a skills management system and an employee skills and training database, for all 60,000 Allstate employees and agency staff.

All employees, including managers, prepare a "learning agreement" to list their future training needs by priority, based on their job responsibilities. Employees can take courses based on the learning agreements to close any skill gaps.This approach integrates task and skill profiles for comprehensive performance management. Allstate credits this process with significantly increasing employees' understanding of their jobs, reducing training expense through targeted training, increasing employee satisfaction with training, and improving customer-focused performance.

Digital Equipment Corporation: Individual Assessment Standards and Guidelines. Digital Equipment has developed standards for managing individual competency data in order to ensure that it has current, accurate, and useful information while protecting employees from misuse of the data. The standards were created because various approaches to assessment were being used across the country, approaches based on different assumptions or knowledge about what constituted correct practice.

A worldwide Assessment Standard was created by the Development and Learning organization, working with business management, legal, and HR functions. The standard is supported by guidelines and resources for managers to ensure that the standard is properly applied. Digital has also formed a Competency, Assessment, and Measurement Group that provides consulting to Digital's business units for a fee. Digital anticipates that the benefits will include hiring people with appropriate skills, identifying training needs, planning appropriate development activities for employees, and certifying employees.

Sprint: The LINK Performance-Management System. In 1990, the Sprint Corporation was made up of business units with different HR systems for performance planning and assessment, and no common culture or language for communicating Sprint's vision, values, and mission to employees. Now, Sprint uses the LINK Performance Management System with a common language for integrating business objectives, employee-development plans, 360-degree-evaluation instruments, and educational courses.

The system includes seven Sprint core dimensions and 29 subdimensions that share a language and value system for describing Sprint's work and culture. The Sprint dimensions are defined through job analyses, employee and executive interviews, and external industry data. They are the foundation of all training, performance management, selection, career development, and assessment within Sprint.

The LINK system operates continuously in a cascading format. Before the new calendar year, executives announce their business plans. Then, four to six key business objectives are indentified for each associate aligning the Sprint dimensions and subdimensions to support the accomplishment of the objectives. Each associate creates an individual development plan with input from a 360-degree instrument. The LINK process also involves two interim reviews, one annual performance appraisal, and a yearly salary adjustment. This aspect is unique in that compensation is based on whether an employee attains his or her objectives as well as how.

Texas Instruments: Job-Role Profiles. Texas Instruments' information-technology group developed job-role profiles and an integrated skills-management system in order to ensure rapid response to changing business demands and to facilitate a reorganization from a hierarchical organization to a team-based one. The goal was to analyze and document current job requirements, project future needs, and provide training on skill gaps. The group identified 43 job functions within the information-technology environment and developed seven to eight critical skill requirements for each function—including skills in communication and teamwork, as well as job-specific technical skills. The group compiled the jobs and skills in one source distributed to all employees.

The approach focuses equally on business and personal needs in developing education strategies. The job and skill profiles are used in the following areas:

- self-assessments
- career development
- skill inventories
- project assignments
- curriculum development.

Each job's skill requirements are tied to The Education Center's courses. If an employee recognizes a deficiency, he or she knows which course to take. Previously, skill assessments were conducted informally and ad-hoc. Now, a computer database integrates job-role profiles, project requirements, employee profiles, and skills training.

Some of the practices mentioned in this article, such as Digital's use of the World Wide Web to distribute its curriculum catalog, are early examples of what are likely to become common practices in the near future. Overall, the best and successful practices identified by ASTD's Benchmarking Forum reflect increasingly applied training trends. They're also examples of how successful training professionals can accommodate organizations' ever-changing training needs. ■

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