

Boeing's Team-Driven OJT Model Flying High

Already the standard among U.S. airlines for training aircraft maintenance crews, a team-based on-the-job training system developed as a graduate thesis a decade ago is beginning to attract attention far afield of the airline industry.



Consultant Diane Walter

The methodology, known as the Task-Analytic Training System (TATS), was developed by Boeing Aviation Psychology Consultant Diane Walter during her graduate school days. Walter was able to put the system to the test shortly after joining Boeing in 1988.

"I came in as an engineer in the R&D department, and soon saw an opportunity to implement TATS with the inspection teams," recalls Walter of the origins of her increasingly popular OJT system. Impressed by the results from that program, Boeing set Walter to the task of implementing TATS in its cockpit crew training program in 1990, and by 1994 she found herself advising several of Boeing's most important clients on using a TATS approach to training airline maintenance crews.

"We found it worked very well in terms of creating buy-in from employees, establishing competency requirements, and improving procedure documentation," Walter says. "And we kept finding new opportunities to implement it."

Growing praise for the system has since led to interest by other manufacturing sectors; organizations ranging from Nestlé Chocolate and Confections to biotechnology developer Amgen to the Corpus Christie Army Depot are in the process of developing team-based OJT systems based on the methodology.

Norton's OJT system, which was overhauled recently in response to the company's dramatic growth, includes checklists used to document a trainee's progress in mastering operation of various machining equipment. A core group of training supervisors, or "training champions," as they are known, provide train-the-trainer instruction

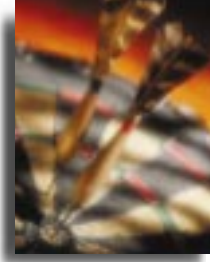
Walter's TATS system is an eight-step process for creating a team-based, structured OJT system (see "A Model for Team-Driven OJT," in *T&ST*, October 1996). The system's centerpiece is a team approach to designing OJT training, drawing on input from subject

matter experts, supervisors, and even trainees to conduct task analyses of specific job functions and craft training modules. "You'd be surprised at the fresh insights that can come from trainees looking at a job task for the first time," Walter notes.

TATS accomplishes two goals at the same time by creating a team structure and a formalized OJT system, says Walter. The teaming process proved a boost to employee enthusiasm among Boeing divisions that adopted the system, and TATS has been successfully adapted to environments with self-directed work teams already in place. "Just by setting up teams, the information starts flowing, and it's remarkable how quickly an efficient OJT training module can be produced," Walter says. "I am totally sold on teams implementing OJT."

Walter's success with her program, which in recent years made her an in-house consultant for several divisions within Boeing—and an outside consultant to company clients—has led her to part company with the aircraft manufacturer to launch a Seattle-based consulting practice. With growing demands among other manufacturers seeking to adopt the TATS program, "it wasn't practical to continue balancing my roles inside and outside of the company," she says. "But Boeing has been very accommodating," she adds.

to designated OJT trainers, who in turn provide hands-on training to new hires. When the OJT trainer is satisfied that a learner has achieved needed competencies on a given machine, he signs off on the checklist; a line inspector then reviews the novice operator's skills, as does a quality inspector and a training champion.



"When it's all said and done, there are five signatures on that checklist, and at that point we're pretty confident in the skill level of our trainee," Hoover says.

Checklists also factor heavily into a new OJT program at the Waldoboro, Maine, plant of Osram Sylvania, the Germany-based lighting manufacturer. The facility decided to overhaul its buddy-based informal OJT system in 1995 and had a structured program in place by early 1996.

"We'd gather all the people that work a particular job together—we're a three-shift, 24-hour operation—and ask them to come up with the basic elements of the job task," says Susan Glueck, director of total quality at the plant, which makes the tungsten filaments used in both fluorescent and incandescent lights. "The objective was to develop a checklist of job tasks that was comprehensive—but not too detailed," she says. "Then they'd write training plans on how best to train individuals to meet each item on the checklist."

At SGS Tool Company, which has just begun to plot its course in developing a structured OJT program, documented competencies are high on the priority list. The company will likely rely on skill standards developed for machine tool operators by the National Machine Tooling Association.

Of course, checklists alone don't guarantee that an OJT program is doing its job. "I've been in plants where the most important thing a trainer does is check off a checklist, regardless of whether the training has been done," notes Levine. And if the checklists are developed without input from the shop floor, they're all but irrelevant, he argues. "In order to put together valid OJT checklists, you've got to ask the experts—and you're not going to find them in the training department," he says.

As Jacobs pointed out, manufacturers often prefer OJT over other training delivery methods because of its potential to quickly train the growing pool of temporary workers hired to allow companies to meet demand spikes. In terms of getting a temporary worker up-to-speed quickly on