CRT teams set own goals, devise methods to boost productivity using ITI/MTM

Several Tek groups now are using Improvement Through Involvement (ITI) and Methods and Time Measurement (MTM) techniques to improve their productivity. ITI and MTM both describe programs to help managers tap the full expertise of the people doing the job. Ideas for ways to improve the way we work come from the operators themselves.

One of the first Tek groups to try the ITI/MTM approach to streamlining their work was CRT Gun Production, under Bill Johnston. Tekweek recently interviewed Bill, along with some of the people he calls the "real experts," Paula Bennett, Stella Kutter, Marie Wakehouse and Nancy Chandler, representing the group of some 15 people.

SAUNDRA JACKSON wires a CRT gun.

DOROTHY VERMEULEN carries out final inspection of finished CRT gun.

Bill

Tekweek: When and how did you start your ITI/MTM experiment?

Bill: In period 510 we set up a team of three volunteers. All of them were operators whose regular job is to build CRT guns. Their assignment was to find ways to reduce the build time without hurting quality.

They were told to set their own goals, and they had three months to decide on this. They were back in three weeks with their goals and objectives and some plans for getting started.

Stella: Bill told us we could do anything we wanted. The only restrictions were that we had to meet quality standards and product specs. We were free to improvise any way we could to do the job.

Bill: We didn't really have formal ITI and MTM programs at that time, but we applied those principles. I guess Tek has always operated on the basis that people work best when they set their own goals—and that the real experts on a job are the people doing it. We didn't have MTM when we started, but we're using MTM now.

Tekweek: How did others in the group feel about this—any of you who weren't on the first volunteer team?

Marie: I guess we were a little afraid that they'd come back and start telling the rest of us how to do our jobs, or that they'd show us up by suddenly doing their jobs a lot better than the rest of us. But when we saw the results they were getting, we couldn't help but be interested in how they did it. Then when we started the other teams, we all came up with ideas.

Paula: It happened that I wasn't on a team—my work is pretty much a one-person thing—but the project still made me start thinking of ways to work more effectively. When you really pay attention to how your job is done, you surprise yourself with the things you can find a way to do better.

Bill: Our project gave us a head start on MTM when we actually did start using those methods. We're building nine gun types, and two of the nine are already exceeding MTM standards. About 70 per cent of what we're currently manufacturing is already at 75 per cent of MTM standard, and we're only starting to use it.

Paula: Today I found out what my MTM standard would be and checked it against what I was already doing. It looked like I was already doing better than MTM, so I checked again. Using some of our new ideas, my first hour run was 50 and the second one was 65. MTM standard will be 60, and the old standard was only 32.

Tekweek: Nancy, you haven't said much—do you agree with the others that this approach worked pretty well, or did you see some problems?

Bill: I'll tell you something Nancy won't tell you herself—she works on the T7840 gun, the most complicated gun in CRT, and in period 510 was averaging a two-hour wiring time per unit. She's now averaging 0.49 hours per unit, with **improved** quality. It's the greatest individual improvement we had in the whole group.

Tekweek: How do you explain that improved quality, with that much faster time?

Nancy: It's partly a different attitude. You care more about what you're doing, so you concentrate more; you really see what's happening as you work.

Tekweek: A lot of people still don't

Stella

Paula

seem to want to give MTM a chance. Do you think they're afraid the standards will be too tough, or that they'll work themselves out of a job, or what?

Stella: If people would try MTM, they'd mostly find they can **beat** the standards, not just meet them. And none of us worked ourselves out of a job; we just did our jobs better.

Bill: By improving productivity as much as we did, we didn't have to replace people who transferred out in the normal course of things. But we didn't terminate or transfer anyone out of the group as a result of doing more work with the same number of people. What transfers we had were caused by the product mix changing and causing our needs to shift—none of them were caused by using MTM.

Nancy: I think it's natural for people to resist change, if they're satisfied with the way they're already doing things. A lot of us weren't very gung-ho on that team concept at first, but after we tried it and found out how it worked, we got more enthusiastic.

Bill: It's hard to argue with the kind of results we're getting; 48 per cent reduction in build time since period 510, and improved quality along with the faster production. We're looking at the most recent audit on our defect rate now. It was running about four per cent in 510, but the last six weeks it was down to around one per cent.

Stella: We're working on some pretty costly guns—so that much difference in the reject rate can mean quite a few dollars.

Bill: What managers have to keep in mind, when their people turn in that kind of improvement, is that you have to follow through with pay for performance. You don't get something for nothing. If you want people giving their best to make dollars for Tek, you have to pay them what they're worth.

Marie: I'd like to see this kind of thing happen all over Tek. If the results of that much cost-cutting would turn up in our profit share, along with pay for performance, we'd all be rich.

Stella: We had to keep up our normal scheduled work along with this project when we first tried it, so the cost of getting started actually was negative. I don't know that it always would work that well starting out—managers would have to give people the time they need to get it going, and a lot of encouragement.

Tekweek: Bill, do you feel that having your people plan their own work and set their own goals brought out any hidden

Nancy

Marie

management talent within your group?

Bill: I think it encouraged them to make the most of **any** talents they have.

Paula: It sure built up my self-confidence. I think I could try things now that I might not have done before.

Bill: It made my job a lot easier. Giving individuals more responsibility for their own work—when you clearly identify that responsibility and the person accepts it—leaves the manager free to stop "putting out fires" and do a better job on other things. With this kind of support from the group, I can find time to look at improved procedures, devices, fixtures—whatever we need to keep doing the job better and give them the support they need.

That's a lot of a manager's job anyway—to create a situation that lets people do their best work, and to make sure they have the equipment and systems they need. Of course, I think we have a very special group of people here, but I also think that ITI and MTM can help any group work more effectively.

***PROUDLY DISPLAYING** some of the results of their efforts, members of CRT gun production group are, seated left to right, Bill Johnston, Virginia Stuart, Saundra Jackson, Salli Kennedy; standing, Beverly Brannon, Dorothy Vermuelen, Irene Naylor, Marj Wold, Marie Wakehouse, Paula Bennett, Nancy Chandler, Enid Grittman, Dolores Stafford and Stella Kutter.*