

Why Evaluate Training?¹

A major industrial manufacturer in the United States (US) had an ongoing joint union/management initiative designed to reduce or eliminate on-the-job injuries due to repetitive or awkward physical activity. One aspect of this initiative was that each plant or warehouse had an ergonomics committee made up of engineers, plant managers, assembly-line and parts warehouse workers. The workers were members of the union. The committee's job was to investigate and recommend ergonomic improvements.

As a part of the initiative there was an ergonomics course that committee members took to give them the KSAs to do their job on the ergonomics committee. The course involved two days in the classroom. It included lectures, and discussion coupled with video clips of ergonomic problems which were analyzed by trainees and solutions were generated. The course was taught by three different trainers.

The training had been ongoing for about 10 years. The corporate health and safety department determined that it was time to evaluate the effectiveness of the ergonomics course, and wanted an outside consultant to conduct the evaluation.

Ergonomics committee members from around the world were attending a health and safety conference being held by the company at a centralized location. This allowed access to a large number of employees who had taken part in the ergonomics training program.

The evaluation was comprehensive, and focused on both process and outcome issues. In order to evaluate the process, the consultants examined all the training material and also sat through a number of actual training sessions documenting what occurred and interacting with participants during breaks. They also attended the health and safety conference, and conducted 38 focus group sessions. As well, consultants interviewed a number of both union and management ergonomics committee members from four manufacturing plants in the US.

So, given this is the first evaluation of the training in its 10-year history, how was the training doing? Regarding process, the consultants noted the trainers had vastly different backgrounds and hence emphasized different content. Although there was a trainee's manual, there was no trainer manual to guide the instructors on what and how to deliver the training. Also not enough time was allowed for practice using the job aids provided.

Other process issues identified through observation of the training by consultants were:

- Limited opportunities to practice using the job aids,
- The number and depth of activities was limited.
- Some of the trainee manual was inaccurate and some was actually out of date.

For outcome measures, there was information obtained from reaction questionnaires completed by trainees. From these it was revealed that 42 percent of trainees indicated the ergonomics course was good or excellent in preparing them for their role on the ergonomics committee. Thirty-four percent believed the course had provided average preparation. Eight percent thought the course had done a poor job of preparing them and 16 percent did not answer the question. From the open-ended responses related to improvements needed, there were comments such as

- More examples needed
- More emphasis on the job aid
- Needs more depth, especially in the area of job analysis
- Need information on how to sell the idea to management
- Need help in learning how to actually transfer this knowledge back to the job