

FYI for your information

Personalized Service Training at J.I. Case Co.

Many training managers have discovered word processing as a means of adding a personal touch to training programs that involve large numbers of students.

At J.I. Case Company, however, word processing is used not only to personalize service training, but also to manage program data and obtain statistical information that otherwise might be difficult or impossible to retrieve, according to Charles Lagergren, manager of service training for the company's construction equipment division, based in Racine, Wisconsin.

Since 1978, Lagergren and his staff, who design and implement training programs for employees at 600 Case dealership outlets in North America, have used a word processing system to store student names and addresses, attendance records, evaluation forms, statistics on trained versus untrained employees and employment turnover rates for the 1,000 or so students who attend the Case Technical Service Center (Case TEC) each year.

Lagergren says that the word processor is used to produce a series of carefully written, personalized precourse and postcourse communications which, he believes, help to:

- Encourage discussion between the student and the supervisor;
- Increase self-esteem which motivates the student toward learning specific skills needed on the job;
- Aid the evaluation of course effectiveness;
- Provide follow-up to positively influence the work environment.

This can be done with a reasonably low clerical and administrative work load, thanks to word processing.

About two weeks before class, says Lagergren, students and their supervisors receive personalized letters which serve as a reminder of course registration and encourage discussion about the need for training and its expected results. Included with the letter is a job and training perfor-

mance evaluation form which the student and his or her supervisor complete to determine the student's training needs before the course. The same form will be used later to gauge the student's performance after he or she has completed the week-long session.

This form, which lists major course objectives, is reviewed first by the supervisor who may request course changes. The supervisor then sits down with the student and, together, they list priorities for the student. "The student, in effect, contracts with the supervisor to learn this material," Lagergren explains. "As a result of this discussion, the student comes to class in the proper frame of mind, open to the material presented. Proper attitude is all-important to the learning process."

Upon arrival in Racine, the students find a personalized letter at their motel welcoming them and explaining necessary transportation and scheduling details. Entering class Monday morning, the students rate themselves in certain maintenance procedures and take a precourse test. On Friday, at the end of class, they evaluate themselves again and complete a posttest. The self-evaluations, test scores and the supervisor-set priorities are completed on the same job and training performance form, enabling the students' progress to be easily determined.

Upon returning home, the students and their supervisors receive a copy of the evaluation form and a follow-up letter encouraging continued evaluation and further development of students' skills. In addition, a news release, also done by word processing, is sent to the dealer who sends it to area newspapers and trade publications to inform the community of the dealership's commitment to personnel development and quality service.

Word processing allows constant updating of training files and quick and easy access to information. "We have recently done some statistical studies which have had surprising results. For example, one study revealed that the turnover rate of 18

percent for Case technicians who have received training is much lower than the accepted industry average, which is 30 percent. This information, which would be very difficult if not impossible to obtain without the help of word processing, has been a vital tool for us when validating our present training or proposing new programs to Case management."

Lagergren says his staff also uses word processing to prepare quarterly training attendance summaries by territory for Case field service personnel. In addition, training records from as long as five years ago can be easily checked. "This helps us plan for future training needs, and allows our field personnel to encourage dealerships not yet making use of our programs to do so in the future," he concludes.

Mississippi's Tailor-Made Training Program Attracts Industries, Provides Needed Jobs

During the past three years, more than 13,000 men and women in Mississippi have been trained for specific jobs in industry, thanks to a successful educational program undertaken by the state. Financed by the Industrial Services arm of the Department of Vocational and Technical Education, the training to date has been accomplished at a cost of \$80.59 per trainee, according to C.L. Stevenson, assistant director. The program has worked well for Mississippi workers and for companies like Borg-Warner Chemicals, Phelps Dodge Cable & Wire Co., Lockheed-Georgia, Kimberly-Clark Corp., Sperry Corp., Duo-Fast Corp., Consolidated Foods Corp. and others.

Acceptance is high

Of the 14,540 people entering the program during the past three years,

95 percent completed courses designed for a specific industry and became employed in one of the 50 industries using start-up training. Manufacturers who used the program applauded the flexibility of training offered, the cooperation received from junior college staffs and the lack of red tape.

"The current training program," said Mississippi Governor William Winter, "has been quietly but effectively achieving positive results for the state and for industries which have taken advantage of its training offer. Our failure to share in the economic growth experienced by much of the rest of the South during the 1970s can be traced to the lack of an educated and properly trained work force."

In a recent survey, the 50 large manufacturers who have used the start-up program indicated they would recommend it to a new industry that might need such employee training.

"These jobs, providing far higher wages and benefits than the majority of new employees have received in the past, are employing workers primarily in higher-paying durable goods manufacturing industries," said C.L. Stevenson, assistant director of the Department of Vocational and Technical Education. His department paid instructional salaries of \$1,114,431 over the three years, plus cost of manuals, videotaping and other training aids.

Kodak Invests in Higher Education

The Eastman Kodak Company designated nearly half of its corporate contributions of \$10.5 million in 1981 for the support of higher education. More than \$4.9 million was given through the company's educational aid program, in addition to more than \$2.2 million in support of continuing education for Kodak people. This support included funds for tuition aid, academic assignments and master's and doctoral awards.

Walter A. Fallon, Kodak chairman, noted that the company's goals for investment in higher education have been given new directions.

"George Eastman," he says, "invested heavily in education. Earlier in this century, he contributed millions to build the physical plant of

several major universities. But today, while the physical plant exists, our educational institutions often lack the financial resources to use it to its fullest advantage. Now, rather than invest in capital improvements, we seek to invest in excellence—in outstanding students and faculty—as an expression of Kodak's continuing commitment to education in today's changing society."

The company recently established the Kodak Teaching Incentive Grants as one response to the charge that business has been "eating its own seed corn" ...taking the best and brightest graduates away from the classroom. Through the new grant program, Kodak encourages outstanding doctoral graduates to pursue engineering and scientific careers in teaching and research.

Another initiative is the Kodak Fellows Program, which encourages scientific inquiry and excellence through grants for graduate students in engineering and science. The Kodak Minority Academic Awards Program identifies minority students who have proven themselves scholastically. Kodak grants provide scholarships in science, engineering and business. A fourth program is the Kodak Scholars Program, designed to encourage excellence and scientific inquiry for selected undergraduate students. Expenditures for this program last year totaled more than \$1 million.

Fallon points out that it's valid for higher education to seek increased support, where possible, from corporations of all sizes. At the same time, he underscores the "impossibility of business being able to replace the real and projected cuts in support at the federal level.

"I see a great deal of room for creative new directions in college-corporate partnerships. Some examples that come to mind are employee reimbursement programs, student-faculty internships, summer co-op employment programs and on-site teaching courses...to name just a few that are already in place at Kodak," he notes.

Fallon adds that there is a need to continue the search for new and better ideas to enhance the opportunities for partnership—ideas that will be beneficial and worthwhile.

"This partnership remains one of the best means we have for coming up with new directions in the face of new realities," he concludes.

A Hot New Buzzword— "Ergonomics"

Ergonomics is the study of the relationship between human beings and the machines and equipment they use on the job. Related terms include "human engineering" and "biomechanics," and it's almost impossible to avoid them in publications dealing with work.

Why this sudden popularity for concepts that are not exactly brand new? We see several reasons. First, we have developed a heightened consciousness about workers' health and the costs to management of ignoring it. Some experts believe that the right application of ergonomic principles could reduce the number of work-related accidents and illnesses.

Second, the growing interest in robots has made it more important for industrial engineers to analyze the physical components of work to develop the most productive machine/human relationships.

Finally, there is the explosion of new office technology and the promise of vastly improved white-collar productivity. Whatever the promise of this technology, it has made clear that a constantly growing white-collar work force faces daily conditions that may or may not impair performance, may or may not cause physical problems, but in any case are not well understood.

In recent months we have carried several items with an ergonomic slant. Naturally enough, as consultants on work place conditions, we think a lot about how these ergonomic considerations fit in with other behavioral approaches.

First, greater knowledge of how people relate to the work place—in any terms—is welcome. As consultants to a wide variety of work organizations, we have always given important consideration to the physical as well as the psychological factors in job design.

Second, ergonomic factors can only be—to use Fred Herzberg's terms—"hygiene factors" or "dissatisfiers." They can cause trouble if they are not right, and they deserve considerable effort to be put right. But they do not operate as "motivation factors" or "satisfiers" spurring workers on to superior performance. That kind of motivation comes only from sound job designs that are strong in such core dimensions as skill variety, autonomy, feedback, task identity and task significance.

Ergonomics is a proper part of a

balanced approach to work design. Unfortunately, hot new ideas are often taken up as cure-alls, without attention to their limitations or appropriate uses. To treat ergonomics this way would be a mistake. It can help in the design of jobs for productivity, but it can never replace a design process that gets to the motivational heart of the job—*Reprinted from "Behavioral Sciences Newsletter," Jan. 11, 1982.*

First-In-U.S.A. Training Gallery Introduced by Draeger

United States industrial rescue teams have been introduced to a new type of training and evaluation technique with the opening of the National Draeger Training Gallery. Unique to this country, the Training Gallery was introduced at the official opening of the new plant of National Draeger, Inc. in Findlay Township, near Pittsburgh.

Designed to provide respirator training under frightening real-life conditions, the Training Gallery includes a series of chambers and devices which allows evaluation under extreme conditions of physical and mental stress. It is believed that the Training Gallery is the most complete such facility in the United States, including those at state and federal fire training academies.

The Draeger Training Gallery is

available to groups of industrial breathing apparatus wearers and fire companies and as an assessment center for new employees or recruits. It is also available for evaluation of various types of breathing apparatus, respirator use training, physical testing of individuals and as a means of updating the training of experienced men and women.

The Training Gallery is composed of three main areas—a *work evaluation room*, a maze type *orientation course* and a centralized *control center* which allows close direction of all fire fighters in the system through television monitors and special controls.

The *work evaluation room* includes: a bicycle-type ergometer for prescreening of heart rate and other factors; a ladder mill, adjustable for speeds from 3 to 25 meters per minute; a weight-pulley muscle evaluation machine for physical stress; a confined-entry training tank; and an industrial work tunnel composed of horizontal, vertical and sloping sections along with valves for simulating work tasks.

The orientation course is composed of a series of mazes with manhole, tunnel, restriction and other obstacles. Participants in the orientation area are subject to smoke, total darkness, heat and frightening noises. Even during heavy smoke and darkness conditions, subjects are under constant supervision from the control center through infrared cameras and television monitors.

Moving Unskilled Workers Into Well-Paying Jobs

Every year, approximately 200 unskilled workers take part in a training program in Greensburg, Pa., that not only teaches them highly marketable machining and welding skills, but also assures them placement in good jobs after completing the program.

The program is taught at the Elliott Training Center in Greensburg, and its realistic approach to training for industry sets it apart from other programs. Elliott Company, a manufacturer of turbines and compressors, is a part of the Power Sector of United Technologies Corp. Elliott developed the training center, using full-size industrial equipment in an actual industrial setting. The focus of the program is on developing defined competence for industry skill requirements.

The Elliott Training Center began operating in 1973. At that time, the Center trained unemployed workers exclusively for Elliott Company in conjunction with sponsorship from the National Alliance of Business and the federally funded JOBS program. The CETA program replaced the JOBS program, and since its inception, the Elliott Training Center has graduated and placed in jobs more than 1,500 students.

Today, students may enter the program by establishing their eligibility for training through the Comprehensive Employment and Training Administration (CETA) in their counties. Once accepted, eligible students may receive a training allowance during their training program. Graduates in recent years have found employment in many western Pennsylvania companies such as Westinghouse, Kennametal, Hillman Barge, Dravo, Gibson Electric and Fruehauf, in addition to Elliott's three plants.

As requested, special training programs have been developed for companies to train newly-hired or upgraded employees. Elliott has, for example, completed extensive training programs for Volkswagen. Volkswagen body shop production workers received basic welding training, while their supervisors learned quality control and welding theory.

The Elliott training program currently makes available two regular course offerings—a 30-week course in machining and a 26-week course



Subject in the maze of National Draeger Training Gallery. Commonly the orientation course is traveled in smoke and total darkness.



Instructor Foreman Diane Thomas (left) explains the gas-tungsten arc welding method used to join pipe on a full-scale mockup of a lube console at the Elliott Training Center.

in welding. Each course contains approximately 200 hours of classroom theory, with the remaining time spent operating equipment in completing shop projects designed to progressively develop required skills.

All instruction is completed at the 13,000 square-foot facility in Greensburg by a staff of 10 instructors. Each instructor is an Elliott Company line manager with extensive experience in the metal working industry and outstanding skills in machining and welding.

Program starts with testing

Participants in the Elliott training program comprise a cross-section of people with little or no previously learned industrial skills. Before beginning the program, however, they undergo comprehensive tests to determine their basic aptitudes and mechanical abilities, spatial relations appreciation, mathematics and language skills capabilities, abstract reasoning abilities and dexterity. Test results are matched against computer norms developed through the testing of former students.

Approximately 20 percent of participants are women, who receive as scheduling permits, three weeks of preliminary instruction in the use of hand tools, industrial terminology, basic mathematics, drafting and measuring instruments before entering the regular programs.

Promoting Employee Wellness

Minnesota Mutual Life is doing its best to keep employees healthy and happy. The St. Paul-based insurer offers a variety of programs and services to help keep employees minds sharp and bodies fit.

"Our corporate wellness program may be less structured than other companies," says Dr. Warren Kleinsasser, vice president and chief medical officer, "but by taking bits and pieces of programs that have been successful elsewhere, we've tailor-made our own wellness program."

Here's how Minnesota Mutual Life's fitness programs stack up:

- *Periodic health testing.* All full-time employees who have been with the company two or more years can take computerized health surveys at various ages.

- *Periodic audiometric testing.* Members of the medical department periodically test the hearing of employees who work near noisy machines.

- *Blood pressure monitoring.* Medical department personnel currently monitor over 100 employees on a regular basis for high blood pressure.

- *Allergy treatment.* Employees who suffer from allergies are treated periodically by members of the medical department.

- *First-aid instruction.* Red Cross-certified instructors periodically teach employees how to save lives through CPR (cardiopulmonary resuscitation).

- *Weight control program.* Since November 1980, approximately 40 employees have participated in this program subsidized by Minnesota Mutual Life. Developed and run by Candace Jennings and Associates, a local company offering counseling and programs for healthy living, the 12-week program helps employees reach "the ideal weight for their lifestyle."

- *Stress management.* Approximately 50 management level employees have participated in this five-week program, introduced in January 1981. The company expects to open the program to other employees soon.

- *Unsmoke.* Minnesota Mutual Life is subsidizing and pilot testing this eight-week stop-smoking program, developed at the University of Minnesota.

- *Chemical dependency counseling.*

This is available through the company's confidential employee assistance program, ASK.

U.S. and Canadian Managers Average Over \$25,000 in 1981

The annual base salary for managers in the United States increased nine percent in 1981 to average \$25,894, while it jumped 12 percent in Canada to average C\$27,857, reports the *1982 AMS Guide to Management Compensation*, recently published by the Administrative Management Society.

The guide incorporates AMS's tenth annual North American survey of salaries and fringe benefits of 20 representative middle level management positions. Effective September 1981, this latest survey covers 63,093 managers in 3,686 companies located in 115 cities. Of the 20 positions surveyed, 14 are general administrative positions and six are industrial-related.

The survey reveals an increasing number of positions average base salaries of over \$30,000. As of September 1981, the highest paid position in the United States of those surveyed was sales manager, averaging \$33,900 for a 13.7 percent gain over 1980. Last year's AMS survey leader, plant manager, follows at \$33,700 showing a gain of 6.3 percent for the year. Only one position, word processing supervisor at an average of \$16,300, earned less than \$20,000 in base pay in 1981.

In Canada, the AMS survey found six positions average over C\$30,000, with personnel director leading at C\$36,100. Plant manager follows at C\$33,100 and then auditing manager at C\$32,900. Sales manager came in fourth at C\$32,700, whereas none of the 20 positions surveyed averages less than C\$20,000.

The *1982 AMS Guide to Management Compensation* is available for \$90 to nonmembers (\$60 to AMS members) by writing to "1982 AMS Guide," Administrative Management Society, 2360 Maryland Rd., Willow Grove, PA 19090; 215-659-4300.