

CRI

SUCCESSFUL APPLICATIONS

of Criterion-Referenced

Instruction from

Around the World



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The Center for Effective Performance, Inc.

CRITERION-

CRI is a proven process for guaranteeing workforce performance. It is used by organizations around the world to positively impact bottom-line business results, reduce training time, and lower training costs. This unique instructional design methodology, pioneered by Dr. Robert F. Mager, the foremost name in the training and performance improvement industry, is based

REFERENCED

on behavioral science research about how people learn and what motivates them to learn. Using CRI, training and performance improvement professionals can: 1) Pinpoint management expectations for job performance and the criteria that will satisfy these expectations, 2) Determine the critical skills employees need to achieve management's expectations, 3) Uncover any

INSTRUCTION

motivational or environmental barriers that could prohibit employees from meeting expectations, and 4) Identify the most effective and efficient training and non-training solutions for achieving desired performance. What was once the best-kept secret in the business world is now considered by many to be the best and most viable answer to the workforce challenges facing today's organizations. On the following pages you will find examples of the many ways that CRI has successfully...

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Successfully Impacting Bottom-Line Results

CATERPILLAR AMERICAS Co.

“The skills acquired through CRI allowed us to produce a program that was directly linked to improved business results through improved salesforce performance.”

Richard G. Buckley, Professional Development Consultant

Caterpillar Americas Co. (CACo), the Latin American commercial subsidiary of Caterpillar Inc., was projecting a shortfall in sales volume for its Brazilian-manufactured equipment. The company challenged its training department to develop a solution that would allow CACo to reach the sales goals specified in its annual business plan.

The response was a salesforce development plan called Pro2000, which focused on improving individual salesperson performance improvement. This would thereby impact sales volume, profitability, market share and customer satisfaction.

“We have greatly improved our training results by completely changing our historical approach of ‘downloading knowledge’ in a straight classroom environment. The focus is now on skills improvement and the application of those skills in a variety of situations through hands-on practices, simulations and skill checks,” said CACo Professional Development Consultant Rich Buckley.

Pro2000 can be directly linked to millions of dollars in incremental sales made by dealer salespeople who attended the program. In one year alone, “won back” customers skyrocketed by 341 percent, while new customers increased by 225 percent. “We feel we are only beginning to tap the enormous potential of this program,” said Rich.

In 1998, Pro2000 was announced as the winner of the Caterpillar Chairman’s Award for Annual Quality Improvement. This is Caterpillar’s most prestigious award and competition is of extremely high caliber. Over 700 projects were submitted from all areas of the company, including R&D, Engineering, Manufacturing, and Distribution. This was the first time the Chairman’s Award was bestowed on a marketing program.

Pro2000 is currently in the process of being expanded to other marketing arms of Caterpillar, including Europe, the Mid-East and Africa.

FORT JAMES CORP. (NOW PART OF GEORGIA-PACIFIC)

Fort James Corp., a major manufacturer of paper products such as Dixie cups and Brawny paper towels, sought to design training for call advisors at the company’s new Employee Assistance Center. These advisors are critical to maintaining a positive relationship with employees, as they answer questions and handle requests related to employee benefits programs. Fort James also sought to centralize and streamline benefits administration and reduce the costs of handling employee requests for benefits information.

The subsequent CRI-based solution combined a training program with an online support system that advisors could use on the job to help them process requests successfully. All benefits documentation and information was also put

online to save space and provide easy access. These steps enabled call advisors to work more efficiently and to streamline their process for handling requests. The approach achieved Fort James’ goals for the project in the most efficient, cost-effective way possible by minimizing the time advisors spent away from the job in training.

Since the program’s implementation, feedback from employees using the Employee Assistance Center has been extremely positive. In addition, an audit of the Center, completed after the training program was implemented, yielded the highest possible marks for call advisor performance.

Successfully Impacting Bottom-Line Results

HILTON HOTELS CORP.

Hotel revenue management is the discipline of determining hotel rate structures and room availability in order to maximize revenue. It is an extremely complicated and analytical process that involves both science and intuition.

In the past, Hilton Hotels' revenue managers were provided with access to countless data sources and limited training on how to access, read and interpret data. Analysis and decision-making skills were developed primarily through on-the-job experience. As a result, Hilton had experienced uneven revenue management results and limited capacity for expansion.

The subsequent CRI-based training course that was developed—known as *Revenue Management University (RMU)*—included the following characteristics:

- Flexibility to ensure easy customization of the course for hotels of differing size, type and geographic location

- A "campus" environment to encourage the flow of ideas and experiences among directors of revenue management (DRMs) and to minimize job distractions
- A self-paced format so the DRMs could take the time needed to master each skill

Since *RMU* was implemented, Hilton's industry ranking increased from a C to a B+. At the same time, the company has grown in market share and penetration in most major markets, surpassing all major competitors but one. "The real evidence of accomplishment," said one course graduate, "is that our occupancy was up 10.37 percent for the month with an increase of six percent in Average Daily Rate."

The training course has also yielded an unanticipated benefit—40 percent of the individuals who have graduated from *RMU* have earned promotions within six months of completing the course.

TEXACO AND STAR ENTERPRISE

"After using the criterion-referenced approach to problem solution, we soon had units making 100% on our Lubrication Audits and issuing challenges to other units to try to beat them."

Don Oliver, Senior Coordinator of Training

"We have made extensive use of CRI throughout Texaco and Star Enterprise," said Don Oliver. "It has resulted in a lot of very meaningful improvements in the way we do our training."

In one example, one of Star Enterprise's plants had a problem with equipment reliability. The average Mean Time Between Failure (MTBF) for most of their equipment was nine months, which was costing the company hundreds of thousands of dollars annually in repair expenses.

The company's training department used performance analysis to determine the source of the problem. The analysis uncovered varying skill deficiencies among operators and machinists. Depending on each individual's needs, the trainers developed a range of CRI-based train-

ing—from refresher training to an intensive training course. By tailoring the training in this manner, no one was required to attend training that they did not need.

But the trainers also uncovered some non-training obstacles that were preventing workers from performing as expected. In many units, for example, workers did not have the necessary lubrication equipment, tools, computers and/or storage to properly maintain the equipment.

Implementation of both CRI-based training and non-training solutions has successfully:

- Increased the MTBF from nine months to 40.8 months
- Resulted in an estimated annual savings of \$565,000

Successfully Impacting Bottom-Line Results

A GLOBAL LEADER IN INTERNATIONAL BANKING

A leading bank headquartered in New York sought to improve the level of service provided by its call center representatives by reducing the level of variation in service performance. At the time, the training course for new representatives consisted of a six-week course, of which only about 20 hours was dedicated to simulated calls. Learners who completed the course took an average of 12 months to achieve full proficiency.

The bank instead implemented a CRI-based course that included ample opportunity for simulated practice. The new training program successfully reduced the learning curve from 12 months to 20 weeks. Newly trained represen-

tatives also proved 20 percent more productive than the experienced representatives on the floor.

With respect to variances between high and low performers, on-the-floor variance was successfully reduced from 100 percent to 30 percent, while in-class variance was reduced from 50 percent down to 5 percent. By virtually eliminating the in-class performance variance, the bank could now predict, within 5 percent of phone volume, how many calls students could take immediately after training. This allowed management to accurately estimate staffing and scheduling requirements.

Successfully Reducing Training Time

BUDGET RENT A CAR

When Budget Rent a Car decided to install a new, state-of-the-art computer system in their reservation centers worldwide, they faced a major challenge—how to quickly train over 1,400 agents in over 30 countries while ensuring that the agents would be able to use the new system proficiently on the first day of cutover. The solution was a self-paced training program, delivered through audiotape or multimedia, computer-based training (depending on the user group), that featured hands-on practice and performance checks.

Budget reported that the total training time averaged between 10 and 20 percent less than the training required for comparable systems. More importantly, agents who completed all of the training modules proved proficient in using the new system on the first day after training. “This was the smoothest cutover to a new system in Budget’s

history due in no small part to the training,” commented the Director of Reservations for Europe, the Middle East, and Africa.

In the months after the new system was implemented, Budget also reported an additional benefit from its CRI-based training program. The average talk time (the time agents spend on the phone with each customer) had dropped by almost ten seconds per call which, multiplied by the 16 million calls the company receives annually, proved a significant time savings.

The system has since been upgraded, and the training has been revised and expanded to incorporate these changes. The instructional design has held up well, and its flexibility has enabled Budget to make the necessary revisions without incurring significant redevelopment time or costs.

NORTEL NETWORKS

Responding to quality assurance requirements from its international customers, Nortel Product Training and Documentation decided to implement an internal quality function as part of its pursuit of ISO 9000 certification.

Using the CRI methodology, Nortel’s designers identified the essential knowledge and skills required to successfully audit quality systems. The CRI approach helped to identify:

- The critical components of the course and matching course objectives
- Superfluous content to be eliminated
- Appropriate delivery systems to use for each of the course objectives

In comparing the CRI-based program to the company’s traditional training courses, Nortel reported that course

development time was reduced by 50 to 60 percent, while participants required 40 percent less time to complete the course objectives.

In addition, because the first half of training was self-paced, participants could complete the training at their own workplaces; this reduced housing expenses by 40 percent. Of the 40 internal auditors who had completed the program at the time of Nortel’s training assessment, 75 percent had been promoted or drafted to other Nortel lines of business.

With respect to the quality of the audit program itself, the ISO registrar, an external, third-party assessor, regularly cites the program as “outstanding.” External registration audits are shorter in length and conducted less frequently, resulting in an estimated savings of \$10,000 annually.

Successfully Reducing Training Time

SABRE (FORMERLY TELESERVICE RESOURCES)

Sabre is a leading provider of computerized central reservation service for hotels. For each client, the company employs a team of telephone agents who take calls from prospective guests and travel agents and then enter the information into a reservation system. During peak seasons, additional telephone agents are hired for select accounts.

The typical learning curve for new telephone agents being trained on complex accounts was three to four weeks, and this period was always accompanied by numerous reservation errors. These errors were extremely costly both in

terms of dollars and in client relations.

To improve training to new agents, Sabre developed a CRI-based curriculum that featured clear objectives, skill checks, and ample opportunity for trainees to practice the skills they were learning. The new training course completely eliminated the learning curve of new agents. Sabre found that, on the very first day after training, the performance of the temporary agents mirrored the performance of the company's most experienced agents.

TOHO OIL COMPANY

Japanese-based Toho Oil Company maintained a rigorous training program for its shift operators that required a full three years to complete. The program included a five-month lecture-based course on fundamentals, six months of one-on-one practice, and two years of on-the-job training.

To reduce the training time needed to attain full proficiency, Toho Oil developed a training program that focused on knowledge and skills development and relevant practice. New shift operators began by learning basic, fundamental

skills. As each skill was mastered, the trainees would then progress to more and more complex skills.

The new CRI-based training program successfully slashed the time needed for shift operators to gain proficiency from three years down to only one year. Not only that, but the company has also witnessed improved performance on the part of its senior shift operators, which it attributes to impact of the new training program.

Successfully Reducing Training Costs

DENSO MANUFACTURING

DENSO Manufacturing, a Japanese-based automotive supplier, has implemented the CRI methodology throughout several of its U.S. facilities. CRI is used in a variety of ways, including:

- The development of new training courses and performance technology tools that measure skill competence instead of knowledge competence
- An investigative process for uncovering why taught skills are not being used on the job
- Validating the root causes of performance problems and recommending appropriate, cost-effective training and non-training interventions

Approximate annual savings from the application of CRI add up to over \$178,000. This includes:

- Over \$91,000 saved by reducing training time through course revisions
- \$15,000 in savings attributed to the time required to revise courses
- \$50,000 by not needing to fill an open training position
- Over \$22,000 in savings attributed to performance analysis recommendations

To date, DENSO Manufacturing has been able to completely offset the training department's operating costs through these annual savings. DENSO has also reported that safety injuries have been reduced, discipline appeals have decreased, while the organization's perception of the value of the training department has grown.

A LEADING AIR TRANSPORTATION PROVIDER

Traditionally, the primary method of training at many airlines has been knowledge-based with a heavy emphasis on lecture and videotape. In the early '90's, the Federal Aviation Administration (FAA) provided an incentive for airlines to begin using performance proficiency-based training. If airlines revised current pilot training programs to focus on proficiency of pilot performance (rather than knowledge acquisition), the FAA would reduce required re-training for pilots from twice a year to once a year, resulting in a large potential savings on training costs.

A leading air transportation provider took advantage of the FAA's offer, and has been developing performance proficiency-based training for pilots learning to fly an aircraft they have not previously flown. In creating the new program, the company worked to blend the technical skills the pilots were required to learn with interaction and human-

factors skills that are also necessary to perform proficiently.

Qualification standards for pilots were established. Job and target population analyses were conducted, and a curriculum with an integrated test and evaluation system was developed.

Pilots use computer-based training, intermediary devices, and a full flight simulator at different stages throughout training that provide relevant practice and require them to demonstrate competency in their new skills.

After pilots have completed training, they are subject to in-flight evaluations only once a year to assess their continuing performance. The airline estimates a savings of \$5 million annually on training costs, while training time has decreased from 26 days to 20 days.

Successfully Reducing Training Costs

A LEADING PROVIDER OF WIRELESS COMMUNICATIONS

“E-learning made sense for us because the ROI was clearly defined and seen in less than 12 months.”

Rob Lauber, Executive Director of Learning Services

A leading provider of wireless communications faced a challenge in providing effective and cost-efficient training to its newly hired store employees, all of whom were scattered across a wide geographic region.

Previously, the new-hire sales and service associate (SSA) training was comprised of instructor-led courses held in central locations. These courses were conducted only when there was a “critical” mass of new hires; therefore, a new employee could work for several months before attending training. At the same time, because many of these employees were part-time, they were resistant to travelling long distances in order to attend training.

In response, the company employed the CRI methodology

to come up with ways to improve training. The new training program consists of a combination of online learning and structured on-the-job training. SSAs follow a skills-based curriculum map that allows them to assume greater responsibilities as they complete each level of training.

Annual training costs are expected to decrease by an impressive 75 percent, with savings coming from the elimination of physical training facilities, travel costs, printing and instructor time.

At the same time, the company has seen new SSAs achieve full productivity an average of five weeks earlier than those who completed the former training program. The company also anticipates a reduction in first-year turnover.

Successfully Improving the Lives of Learners

AMERICAN FEDERATION OF TEACHERS

Prior to the implementation of CRI at the American Federation of Teachers' (AFT) Union Leadership Institute, training was like most traditional, academic-style teaching—approximately 80 percent of the time was spent on lecture. While the remaining 20 percent of the time focused on skills practice, this practice was not supported by constructive feedback from the instructors.

The CRI methodology has completely changed the instructional nature of the institute's training programs. Today, lecture is limited to less than five percent of the total class time. Students spend the rest of the time preparing for

practice, engaging in practice and receiving individual coaching and feedback on the results of their practice.

What has been the impact of these changes on the students? "Students come early, stay late, do more work than is expected, and continue talking with one another about course objectives outside the confines of the classroom," said Rick Kuplinski, director of the AFT Union Leadership Institute. "But the best result of all is that for the first time I am truly witnessing student self-efficacy. The students in this course can actually do what I want them to do . . . and they're excited about it!"

ENERGY CORPORATION

"CRI has made it possible to ensure the competency of employees as they progress through training."

Manuel Pernia, Manager of Safety and Skills Training

Two of Entergy's subsidiaries, Arkansas Power & Light and Louisiana Power & Light, were dissatisfied with their technical skills training programs. The training materials contained information that was irrelevant in terms of what employees needed to perform their jobs—"nice to know" versus "need to know" information. They also failed to ensure that employees would learn everything they would need to move up in their job classifications.

The CRI methodology allowed the power companies to focus instruction on critical job skills. It then provided a process for evaluating whether employees had mastered each critical skill.

At the same time, the CRI-based training took into account the fact that employees learned at different rates. By converting the training from conventional "stand up"

instruction to self-paced instruction, less-experienced employees could spend the time needed to practice each skill while more-experienced employees could fast-forward through areas in which they were already proficient.

CRI not only successfully increased the competence of employees, it also increased their self-esteem and confidence levels. According to Program Coordinator Richard St. Germain, "this method of training has greatly decreased employees' anxieties over being asked to perform a duty or task which they felt they were not totally competent to perform."

Experienced employees have also demonstrated their complete acceptance of this method of training by strongly requesting participation in the programs.

Successfully Improving the Lives of Learners

SOUTH AFRICA

In 1995, the new South Africa launched the South African Qualifications Act and Skills Development Act, the objectives of which were to:

- a Create an integrated national framework for learning achievements;
- b Facilitate access to, and mobility and progression within education, training and career paths;
- c Enhance the quality of education and training;
- d Accelerate the redress of past unfair discrimination in education, training and employment opportunities; and thereby
- e Contribute to the full personal development of each learner and the social and economic development of the nation at large.

In response, the Provincial Skills Development Project was formed to help previously disadvantaged citizens gain access to learning, build relevant job experience, and create or find work opportunities.

Initially, the project focused on training for four specific jobs—facebrick laying, finishing carpentry, food preparation and cooking, and food and drink service. Using the

CRI methodology, these jobs were analyzed to determine employers' performance expectations and the skills and knowledge needed to meet those expectations. Then outcomes-based training and materials were designed and developed. At the same time, an action learning program was implemented to provide mentoring support to educators, employers and program administrators.

The project results have been extremely positive:

- Over 200 learners completed the training program in the first 18 months, and many of these individuals found immediate employment upon completion.
- Learnership certificates (earned by learners who complete the program in full) are the first such certificates to be recognized by the new South African Qualifications Authority.
- Employers reported that learners showed more motivation, competence and determination than what they expected from previously disadvantaged individuals.

Due to the project's success, this outcomes-based approach is in the process of being utilized in a number of related projects.

The CRI Guarantee

With CRI-based training, each learner is required to demonstrate competence in each job-relevant skill the training is designed to teach. This means that learners leave training not only with the knowledge but the actual know-how to perform their jobs to management's expectations on the very first day they return to work. The results of CRI-based training are therefore measurable, immediately observable, and designed to directly impact your organization's bottom line.



We welcome the opportunity to work with you to bring the power of CRI to your organization through our world-renowned train-the-trainer workshops, our award-winning consulting services, and/or our high-quality books and tools. We are confident that you will find what hundreds of organizations across the globe have discovered—that only by harnessing the collective power of both your human and material resources will you gain the competitive advantage you need to excel in the business world of today and tomorrow.



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