

A Picture May Be Worth More Than a Thousand Words

by Marie Guthrie

A picture is worth a thousand words, the saying goes. For some people, this is especially true when it comes to learning. For others, neither pictures nor words work quite as well as symbols. Just as individuals favor certain hobbies, careers, music, and movies, they also have preferences for how they learn. Adapting training to fit different learning styles can help employees grasp ideas more quickly—and use their new knowledge more effectively on the job.

The Multi-Channel Communication (MCC) concept illustrates that an individual prefers to learn in one of three ways: figurally, symbolically, or semantically. According to Jim Frasier, manager, Learning Research, Motorola University Learning Technologies, "Most people retain more information and learn more effectively with one of these learning modes. The MCC concept optimizes the use of all three modes to meet the needs of training participants."

Individuals who prefer to learn from real images such as photos, videotapes, and drawings have a figural learning preference. People with high figural abilities like to repair things, design buildings, survey landscapes, and enjoy photography. Persons who learn semantically prefer to read instructions, books, and specifications and write out explanations. Teachers, writers, and actors have strong semantic ability. Those who learn symbolically do so through code elements such as signs, letters, numbers, and musical notations. Mathematicians, choreographers, chemists, and computer programmers have high symbolic abilities.

A study using MCC began in 1995 in the Semiconductor Products Sector (SPS) in Guadalajara, Mexico. Management there asked

MU to help identify the learning preferences of manufacturing operators. Motorola University worked with Drs. Robert and Mary Meeker, experts in Multi-Channel Communication, to develop the assessment form. It was given to a sample of 100 operators. Results of the assessment clearly identified their learning preference to be symbolic.

Motorola University then redesigned the Six Steps to Six Sigma course using a symbolic rather than semantic style. "We wanted to see if using symbolic images would increase learning and make it easier for employees to use concepts at their work stations," explains Jim. Guadalajara participants were evaluated before and immediately after taking the course and again at 30- and 90-day intervals.

The results were dramatic. There was an 800 percent increase in learning retention by the manufacturing associates who took the MCC course. Thirty days after training, individuals were tested in experimental and control groups. Out of the 100 operators who took the MCC version of the Six Steps to Six Sigma training, 80 scored higher than the highest score of individuals who took the standard course. Ninety days after training, operators in both groups were again tested—and again 80 individuals scored higher than those in the control group.

The success of this study led SPS Guadalajara to convert the Wafer Sawing and 5S Methodology training programs to the MCC format. Tere Trujillo, training supervisor, SPS Guadalajara, comments, "Multi-Channel Communication is an excellent tool for teaching skills or knowledge because we focus on the participants' needs. Employees feel comfortable with the training because the learning method is better for them."

Multi-Channel Communication is now being implemented in locations worldwide. For example, MU Learning Technologies converted the instructor-led MCC version of Six Steps to Six Sigma to a Web-based version, released in December 1998. Motorola University instructional designers are also using this concept to design new training courses for manufacturing operators in Asia.

Scott Ashby, Quality program manager, Motorola University College of Technology, has applied the MCC research to the Quality Systems Review Overview course. Targeted to 40,000 Motorola employees, the program will soon be released on the Web.

"Multi-Channel Communication is about serving our customers—finding out who they are and how they learn best, and then using whatever we have at our disposal to satisfy them," says Scott.

"Multi-Channel Communication could become a core competency for people developing training worldwide, especially for courses targeted to our manufacturing associates," adds Jim. "With MCC techniques, we can reduce participant classroom time by at least 50 percent and at the same time dramatically increase learning retention. This reduces cost, decreases time away from work, and increases the quality of the learning experience."

For more information about Multi-Channel Communication, contact Jim Frasier at 847-576-0650 or amte05@email.mot.com.

Below are examples of how Semantic, Figural, and Symbolic learning preferences can be illustrated to communicate information. Multi-Channel Communication (MCC) is a new instructional design methodology that integrates these three modalities.

SEMANTIC

Three

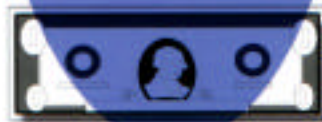
Female

Male

Dollar

FIGURAL

III



SYMBOLIC

3

