BASTON, MARYLAND 21601

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## Why Japan's Leading

Twenty years ago the words "Made in Japan" were synonymous with poor quality in a cheap product. Today those same words stand for high quality, yet their products are still inexpensive.

Analysts have credited this dramatic turnaround in Japanese industry to everything from company pride, to their devotion to the Emperor, to management techniques, to the Japanese diet. The Japanese however will point the finger in a different direction, to a Talbot County man, Lawrence D. Miles, the father of Value Analysis and Engineering.

The Society of Japanese Value Engineering gathered recently to honor three of Japan's industrial giants for their work in cutting costs without sacrificing quality. They received the Miles Award.

In the early 1960's a Japanese delegation visited the Society of American Value Engineers to find an answer to thier problems. "They could get good quality, but the costs were too high," said Miles, the first president of the Society. "They came over here, listened to what we had to say, and they went back and put it to work." The first industries to use value analysis and engineering were electronics and auto manufacturing, which are now Japan's



Larry Miles

major exporters.

"They lead in industry because of their perceptivity, their willingness to listen and learn," Miles said. "In Japan if the costs are too high, they loose the job immediately. Over here in America they find something to blame it on instead of fixing it."

Miles developed the value analysis system in 1947 while working for General Electric, "because everything seemed to cost so much". He described value engineering as a thinking system. You don't try to build a better mousetrap, but think of a better way to catch a mouse.

"To an exceptional degree it focuses on what is important, develops knowledge about it, and then causes great creativity in that area. You select from the creative approaches, answers that may not have come in years with other thinking methods," Miles said.

When Miles put his system to work

the first time, it resulted in replacing a bronze clip on a refrigerator control box (that could flex millions of times) with a cheaper brass clip (that would only flex thousands of times). Quality was not sacrificed because the clip would be used only about six times in the lifetime of the refrigerator. The \$7,000 per year savings may seem like nothing, but when Miles applied the same technique to everything in the control box the yearly savings jumped to \$1.25 million.

The system textbook Miles wrote, "Techniques of Value Analysis and Engineering", is now printed in 12 languages, but is not used in the United States as much as overseas. "They have not perceived the need yet," he said.

But Japan has seen the need for value engineering, and when they honor those who profit from it the most, they honor Lawrence D. Miles.

## You Can Use VE

Although it was developed for manufacturing, the value analysis methodology developed by Lawrence D. Miles can be used by anyone, in any walk of life, to develop creative solutions to problems, or to develop creative alternatives to the status quo.

Value analysis takes advantage of positive thinking, finding answers through a blending of knowledge and creativity.

Step One: Gather all pertinent knowledge available in the area you wish to improve so that your mental work is meaningful, practical, and useful.

Step Two: To use value analysis, you must train yourself to change your way of thinking about a problem. "This is very difficult at first, but is extremely beneficial and positively necessary," Miles said. "It produces spectacularly better answers."

Concentrate on the function of the problem. "People don't want a refrigerator, they want to keep their beer cold," Miles said. "All that people want are functions well performed, they don't care about materials."

Step Three: Establish and state the precise "thinking task". Don't think "How can I make a better switch", but "how can I better interrupt the electric current?" Don't think of how the job is being done now, but what you are trying to do.

Step Four: Change your way of thinking again, to professional quality creative and innovative thinking. Delay all judging. When in a group eliminate all negative people who pre-judge. Let your mind run free. List scores or hundreds of thoughts on your "thinking task". Bring forth approaches that often no one has ever seen, approaches which may be five to 10 years ahead of present practice.

Step Five: Change to judgement thinking. Select ideas, improve upon them, and judge them. Implement an approach which may be years ahead, and preferably vastly better.