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The lovely San Juan Capistrano Mission in Sunny California. Is it any wonder that the Swallows like to return here?
VALUE WORLD

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and

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EDITORIAL POLICY: Provide readership with informative, interesting and timely communication relative to Value Analysis, Value Engineering, Idea Programs, Productivity, Motivation, Creativity and Performance Improvement; VALUE WORLD will act as a vehicle enabling the readership to express themselves professionally in advancing the state of the art. VALUE WORLD is dedicated toward establishing a mutual bond among those seeking to better the quality of working life and to establish a communication network through which participating technical society members can interact for mutual benefit.

CONTRIBUTIONS: Contributions to VALUE WORLD are welcome in the form of letters to the BITS and BARBS column, technical articles, introduction of new techniques, photos and material for cover stories. VALUE WORLD accepts no responsibility in connection with any liability that might occur as a result of material published; the views and opinions expressed by the contributors do not necessarily reflect those of the Publisher or participating Societies. VALUE WORLD is published bi-monthly by the Society of American Value Engineers.
NASS AWARD WINNERS

PAUL GURRELL (L)
Magnavox Company of Tennessee
Highest savings to cost ratio
among companies submitting figures.

NOTE: Justine H. Clark, NASS President is shown presenting the several awards.

MARK PULLEN (R)
Maytag Company
Accepting award for best performance by a company,
Under 6000 employees

BERT CASWELL (L)
Honeywell
Accepting award for best performance by a company,
Over 6000 employees
JIM MC LEAN (L)
Key Program Presentation

CHARLES NARDIELLO (R)
Defense Logistics Agency
accepting award for Performance
excellence.

ROBERT D. GAYLOR (L)
Chief Master Sergeant, Air Force
"Effective Leadership Presentation".

BOB RICHARDS (R)
Three Time U.S. Decathlon
Champion
Key Speaker
"The Best Is Yet To Come"
Here's where a lot of automotive news will come from in the next 70 years.

Rockwell's Automotive Operations has been making a lot of news both on- and off-highway for over 70 years.

Much of the news we'll be making in the next 70 years will have its origins in our 200,000-square-foot Technical Center in Troy, Michigan. It's the country's largest independent research facility devoted entirely to components for heavy-duty trucks, cars, buses, trailers and military, agricultural, off-road equipment and mass transit.

In the most recent past, our technical staff of over 400 engineers, designers, draftsmen, mechanics and technicians has conceived and developed such innovative products as

Stopmaster® II wedge brakes, SQHP® tandem axles, and new Cam-Master® "Q" brakes.

These products are good examples of the kind of technology that has half of all heavy-duty trucks and tractors equipped with Rockwell axles and seven out of every ten heavy-duty highway units equipped with Rockwell brakes. In fact, we are the world's largest supplier of driveline and chassis components for heavy-duty trucks. And a major supplier of springs, wheel covers and plastic components for passenger cars and light-duty trucks, as well.

For more on what we're doing on- and off-highway, write Automotive Operations, Rockwell International, 2135 W. Maple Road, Troy, Michigan 48084.
Talking with some friends one day, the topic turned to hunting ducks. My knowledge of duck hunting was limited to one fact: that there are many species, each unique in some particular way.

Anon, I inquired how they were able to determine legitimate game as it approached firing range.

"Simple," my friend replied.

"If it flies . . . it dies."

Hmmmm!

Simon Pure, I'm not. But I think it reasonable to expect that my friend has an obligation to learn the difference between a Teal, a Mallard, a Coot, a Merganser, and whatever. Moreover, if his tastebuds tell him that a Merganser tastes fishy and a Coot -- muddy, the birds should fly safely on.

St. Thomas Aquinas and Jean Paul Sartre influenced history with their sensitivities; albeit at different ends of the scale. Aquinas was a man of strong spiritual discipline; Sartre the noted existentialist.

Ruth C. Bane, a lesser figure perhaps, wisely advised: "Never take the petals from someone else's rose." Idealistic, maybe. But a good lesson in being sensitive to others feelings.

We in technical societies are sometimes guilty of insensitivity without realizing it. Touting our own particular discipline as though it were the only lifeline to preserve quality of life in business. Putting it on a throne.

Sometimes, our enthusiasm leads to badmouthing others and this is unnecessary. The truth is that most technical disciplines are good; most are needed.

I like suggestion systems.
I like Design to Cost.
I like the concept of Zero Defects and others.

And best of all, I like the sensitivity of a Ruth C. Bane.
"SIX MISTAKES OF MAN" –
1) The delusion that individual advancement is made by crushing others;
2) The tendency to worry about things that cannot be changed or corrected;
3) Insisting that a thing is impossible because we cannot accomplish it;
4) Refusing to set aside trivial preferences;
5) Neglecting development and refinement of the mind and not acquiring the habit of reading and studying;
6) Attempting to compel other persons to believe and live as we do.

CICERO
Roman Philosopher
(Executives' Digest, 1977)

PRODUCTIVITY – DONATUCCI APPROACH
The two greatest impediments to higher productivity are too many people on the job, or too few. The defect of too many people is obvious, but too few people leads to an equally bad situation. It means that you’re going to get into a last-minute crash program of hiring skills that aren’t readily available. Or you’re going to lose time and money in training programs.

Dominic Donatucci, Manager
Multi–Plant Operations
Westinghouse Electric, Pgh.

VALUE ANALYSIS v/s VALUE PARALYSIS –
The following criteria can help insure a successful value program.

1) VE/VA must start from the top. Top management must institute, understand, and believe in it.
2) All levels of management must be trained in the fundamentals in descending order.
3) The Value Manager in small companies should report to the General Manager and in larger companies to the Controller (where the dollars are counted and audited).
4) The VE/VA effort should be directed at both “after the fact” and “before the fact” with eventual emphasis on “before the fact”.
5) Design the program so that department managers seek involvement to meet their VE/VA budgets.
6) Be careful not to be too extravagant with VE credits for doing one’s own routine job as this can boomerang and cause departmental rifts.
7) Finally, be very conservative with reporting savings, making sure every reported savings is a result of a VE team effort.

Norman Vernon
Sta–Rite Industries
Benton Harbor, MI

How important is “formal” behavioral science in motivating Value Engineering practitioners? •

Sir:
It has been my experience that the success or failure of Value Engineering efforts is distinctly related to the department handling of the human aspects concerning the program. Thus formal behavioral science training is, in my judgment, of considerable importance in motivating both the full-time Value Engineer and the part-time participant selected for a specific group or project. Rarely are the technical aspects of a project insurmountable. The human aspects, however, can, if mishandled, scuttle even the most promising project.

E.M. McNally
Midland Ross
Edison, NJ

Sir:
“Formal” behavioral science suggests we react and conform to socially accepted restraints taught us from childhood. We acknowledge that this subdues “creative thinking”.

A practitioner of Value Engineering must first examine his own inner self to understand these restraints and remove them. Then he can practice the application with others.

Robert L. Campbell
Stewart Warner Corp.
Indianapolis, IN

President – Paul Bailey
Advisor – Justine Clark
Executive Secretary – O.S. Hallett
1st Vice President – David Noyes
2nd Vice President – Robert Slough
3rd Vice President – Bud Prince
Secretary–Treasurer – Dick Brengel
POSITION CHANGE –
Mr. S.S. Venkataramanan, author of a recent Value World article – "Bullock Power – A Transportation Venture in India" – has changed positions from Western Railway to join the Steel Authority of India Limited (SAIL), New Delhi, India as a Value Engineer.

GREAT YEAR COMING –
The Chicago Chapter recently conducted a special subgroup meeting involving construction and architectural specialists along with the regular Value Analysis approach. A great deal of interest was generated from the people involved in construction and architectural designs.

It appears to be a great year for Value Analysis and with general business activity on the upswing it is good to know that Value Analysis is assuming greater interest in construction-architectural industry.

By: Chicago Chapter
S.A.V.E.

SHARE THE CREDIT –
Some wise man once said that there is no limit to what you can accomplish if you don’t care who gets the credit for it. Never has this statement been truer than in the quest for improved value. The Value Engineer, to be successful must be supportive of the efforts of other departments within his company and cannot become a threat to the prestige of other departments. If the Value Engineer is to successfully adopt this posture he, in turn, must be totally supported by his management and his contributions must be measured by evaluating his impact on the organization’s performance. Quota systems and efforts at self-aggrandizement will invariably stifle the Value Engineers ability to contribute to his organization.

E.M. McNally
Midland Ross
Edison, NJ

CRITICISM is a difficult adversary and has 2 universal truths:
1. You can’t defend against it.
2. Everyone is subject to it.

Rev. Herbert Pennington
First United Methodist Church
Franklin, PA

PACKAGING IT RIGHT –
Function is the key word when our packaging designs are being evaluated. When an inner support piece, for example, is slated for revision, only the important "structural" and "usability" functions are retained and developed. All other non-important functions are designed out, often resulting in cost savings.

Without functional analysis, it is unlikely that good design improvements can be maximized. Since packaging techniques involve a number of areas of cost, including transportation cost, the Packaging Value Analyst has a rare opportunity to start at the beginning of an operational process and carry it forward all the way to the consumer, or user.

Bill Morris
Packaging Engineer
Schwinn Bicycle Company
Chicago, IL

PROPER SOURCING –
If the Value Specialists have done a good job the first time around, the chances of further real cost reduction are severely diminished with a new design. But source evaluations or make/buy studies can pay big dividends. An ongoing program of source evaluations will keep both the suppliers and the in-house operations on their toes to be competitive and innovative, and keep costs down.

Bob Larson
Caterpillar Tractor Company
Peoria, IL

FUNCTION BY OSMOSIS:
Functional Analysis is the heart of Value Management. Its simplicity frightens away newcomers upon initial contact. Continual exposure wears down the resistance until one feels more comfortable and at ease – a simple tool is adding function as a drawing requirement. What better way to expose our minds to think function.

Slowly at first, but gradually by osmosis, our habits will become more tuned to think in terms of how and why that we will ignite a vast reservoir of new ideas.

R.L. Campbell
Indianapolis, IN
To Our Readers: This series is being written to assist you in becoming more professional. Each issue will highlight a technique for you to try in your daily activities. It has been said that “If you are not moving ahead, you are falling back; for there is no such thing as standing still.”

Many techniques have been developed to assist the professional in accomplishing his specific task. The use of a technique depends on the particular individual — his work, and how imaginative he is in adapting the technique to his needs.

A “Sketchbook” is a collection of memorabilia or observations that may carry little or no significance except to the collector. To him, however, the sketchbook is highly significant and often personal.

When two of my children attended the Mellon Art Institute, they were first asked to keep a sketchbook record of thumbnail sketches. It soon became a book of studies of forms, shapes and color combinations that my children wanted to improve.

A music composer will keep a sketchbook of sound combinations, portions of melodic bric-a-brack that fascinates him, and he files these for reference in his sketchbook.

The writer constantly carries with him a sketchbook for recording interesting situations, character studies, etc. I, too, keep a sketchbook for the many facets of Value Analysis. These are a collection of thoughts, ideas, motivators, that have significance to me, and I in turn, would like to share some of these with you.

In the style of Harry Chapin: “To twad is not to twaddle, for if you twaddle, you talk in a weak and silly manner; but if you twad, you are wise in thought, words, actions, and deeds.”

One of the attributes that has made Man the magnificent animal he is on Earth, is his ability to file and retain information on the things he sees, feels, smells and perceives. With the advent of communications, mankind has been able to catalog these perceptions, and thus, has identified the families of plants and animals, fish and fowl, bacteria and fungus, the major parts of our universe, energy, materials, chemicals — all of the important components of life that we know today.

If you watch “Star Trek” on television, one-half the time my daughter does, you may note that the character “Mr. Spock”, an Earth-Nonearth combination of mortal being, is a storehouse of the above perceptions, and in addition, is always logical, rational, and composed in his thought. Such is not the case with we Earth-humans.

We have in addition to the above storehouse of knowledge and intellect, the added capability of emotion. (Webster - “A departure from the normal calm state of an organism of such nature as to include strong feeling, an impulse toward open action.”)

In conjunction with our intellect, emotion has had an impressive impact upon how our world has been developed.

Examples - Emotion started the Polyponesian wars. It has started and fostered many religions. It has contributed to our diet preferences. It has raised much money. Someone is using emotions anytime he is seeing, hearing, touch-
Techniques To Try

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ing or smelling you. You respond in turn to his emotions through your own.

Thus, if we (Mankind) identify and catalog our knowledge and logic, we must also identify and catalog our emotions and emotional responses, as well as those of other persons.

In the business climate of Value Analysis, our emotions and those of others are measured in thought, word, action, and deeds.

THOUGHT

My mind cannot do two things at once, although it often tries. Sometimes a decision is finally made, after I’ve given my replies.

Thought is when we reach back into our minds, and begin to collect the computer cards that are relevant to the problem. It is the mind-computer search, select and compare time. Along with the basic logic of pure information on the card, the human includes impressions. “Good, bad, yes, no, not sure,” these basic adjectives slip into the card data we have on file. Combinations of these form emotion. For instance, “not sure/bad/not sure” will produce anxiety. Of course, these happen in milliseconds, and are compounded thousands upon thousands in no time at all. Consider the simple problem of waking in the morning. My mind does the dialogue.

“AM I AWAKE?”

Yes No

Go to next question.

Return to subliminal level.

“DO I FEEL OK?”

Yes No

Go to next question.

Ask another series of questions which include, “Must I awaken?”, etc.

(Consuming I feel ok, the next series of thoughts are instructions to the body.)

“OPEN EYES”

“TURN HEAD AND LOOK AT CLOCK”

“IS IT TIME TO ARISE?”

YES NO

Go to next set of instructions.

“DO YOU WANT TO RETURN TO SLEEP?”

“YES”

Return to subliminal level.

(if NO, go to next set of instructions, which may include “REACH FOR WIFE”, etc.)

Now that you can see the complexity of the decision making capability of your mind, let's make some further comparisons of the mind/computer.

Joe Brown walks into my office, obviously enthusiastic about something.

“Dick, listen to the possible solution I have to the design of this part we've been looking at.”

(While he explains his solution, my mind is recording his words. It is difficult, though, because I am impatient and want to anticipate what he is saying.)

(On my part, it is difficult to keep my attention focused, as I anticipate what he is saying.)

“Go ahead, Joe, shoot. I’m listening.”

While he explains his solution, my mind is recording his words. It is difficult, though, because I am impatient and want to anticipate what he is saying. Also, as my mind fills out the data cards and files them, there are already some cards there. “Good, bad, sure, not sure” it’s tough to keep them in their place until “data input” is finished.

“Well,” Joe says, “What do you think?”

(Card sort, press “program run.”)

After a moment of reflection, I begin my answer.

At this point in time, a most significant thing is happening. Two computers, Joe’s and mine, are working in tandem. I am on “print” and he is on “data input.” He is also juggling “good, bad, sure, not sure.” As I continue my reply, I scan him for reaction to my thoughts, and search for the word cards (that will most effectively present my response).

WORDS

“Speak the speak, I prithee, as I speak it to you now, trippingly on the tongue. For if you mouth it, as so many are wont to do, I would as leave the town crier spake my lines.”

-Shakespeare

BODY RUB FOR VALUE ANALYSIS

My office is adjacent to the Contract Administrator's office, and I often hear him use a word I like.

When he expects a difficult time reconciling terms and conditions with a client, or one of our people, he will say, “Let’s just sit here and massage the language until it’s palatable to both parties.” Invariably, a mutually agreeable compromise is accomplished, and without undue strain. Although he is an excellent negotiator, I believe the key word in his approach is “massage.”

Massage is a valid medical term for treating the body by rubbing, stroking, kneading, or tapping. It's benefits are the relaxing of muscles, improved circulation, the soothing of nerves. Despite modern day connotations, massage has been historically a fine and honored form of treatment.

So, how does it apply to Value Analysis?

First, let's remove negative attitudes and some psychological barriers. As we examine a product for value analysis with our V.A. team (which could include the designer,

CUSTOMIZING YOUR SUGGESTION SYSTEM

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Customizing Your Suggestion System

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“All organizations are alike.” Of course not! All organizations, like individuals, have unique characteristics. Organizations vary in respect to size, history, purpose, structure, adaptability, and a myriad of other factors; to the Suggestion System Administrator, these variations can be critical.

A suggestion system designed for an old, established manufacturing firm is not likely to fit the needs of a young growing computer services company. A suggestion committee may be the perfect answer in a decentralized organization, but a disaster in another. Trying to adapt another organization’s system to your organization can be a traumatic experience and perhaps may even result in failure. During my experience with the Department of Housing and Urban Development’s (HUD’s) suggestion system, I learned that some of the ideas which had been successfully applied in other organizations would not work well at HUD. The Department has a unique combination of characteristics that require a unique answer, although other organizations are just as unique. In order to cope with this diversity, there is a need for a general approach to help a suggestion system administrator tailor the system to the specific needs of his/her own organization.

The following discussion identifies four key organization variables to be considered when analyzing your suggestion system. Focusing on these factors should help identify many of the organization’s critical characteristics.

These four variables are:
PURPOSES — The organization’s objectives
STRUCTURES — The way the organization is put together
MEMBERS — The people in the organization
TECHNOLOGIES — The ways the organization does its work

The real significance of these factors is that they orient the Suggestion System Administrator toward a broad view of the organization’s characteristics. If these characteristics are considered in the design of the system, the result will be an individualized system which should be responsive to the specific needs of your own organization.

In each of these categories, I will discuss some of the factors most important in HUD. This outline is not exhaustive, of course. Organizations are complex organic systems; the number of factors which could be considered under any one of the above categories is staggering.

The “MEMBERS” category, for instance, includes all the psychological and sociological characteristics of the people who make up the organization. However, despite this apparently bewildering complexity, an orientation toward these four basic variables will help the Suggestion System Administrator find the key factors which must be considered.

PURPOSES

An organization’s purpose is its objective, its reason for existing, and organizations have a whole network of objectives. It’s usually easy to identify the major objectives of an organization. Profitability is normally one of the most important objectives for private concerns, and providing services to the public is most important for government organizations. Even a small private business’s objectives may include:

- providing a safe environment for its employees
- complying with applicable laws and regulations
- developing new technologies
- being a good member of the community

Some of these objectives are often contradictory or at least conflicting; for example, providing a safe environment may be costly. Those costs will probably not contribute to increasing profits; in fact, since they increase expenses, they will probably reduce profits.

An organization’s objectives are important to the Suggestion System Administrator. The purpose of the organization may influence the direction and emphasis placed on the suggestion system. At HUD, for instance, we found we were receiving relatively few ideas related to simplifying our public forms. At the same time, one of our major objectives was to try to keep the public’s paperwork burden to a minimum. Once this objective was clearly stated, we could see that an additional emphasis in this area was appropriate. We decided to authorize a 30% bonus for ideas simplifying or eliminating forms.

Other organizations may want to emphasize ideas which help in a certain phase of their business, those developed by specific groups of employees, or which improve the Company’s public image. As these objectives are identified, adaptations to the suggestion system can be made, for example, an adjustment to the award structure, or establishing priority processing for ideas in certain categories.

A second aspect of an organization’s objectives is the strategy and tactic used to achieve them. As an example, a business is planning to enter a new product line, and to obtain the necessary capital. One of their actions will be to sell one of their current plants. Ideas relative to long-term improvement in that plant would not, therefore, be of particular value to the company and should be appropriately handled by the suggestion system.

In another example, plans may involve a massive cutback. In this environment one can expect morale, commitment to the organization, and innovation to plummet. The Suggestion System Administrator would be foolish to plan for increases in the volume of ideas or in tangible savings. On the other hand, the astute administrator may decide to initiate a special campaign to compensate for the expected setback.

These questions should be asked about an organization’s objectives:

- Does the suggestion system emphasize objectives consistent with the organization’s objectives?
- What strategies and tactics is

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Customizing Your Suggestion System

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the organization using to accomplish its objectives? Is the suggestion system consistent with them?

- What are the organization’s objectives with respect to innovation and change. What other mechanisms are being used to develop new ideas?
- How does the suggestion system fit in with them?

STRUCTURE

Organizational structure is the second factor to be considered. Probably the most important consideration in this respect is to identify power sources; the organizational chart is seldom an adequate guide for this process. The Suggestion System Administrator must use his own understanding of the organization to make this assessment. It is critical in making recommendations on who will have the authority to approve awards, review ideas, and hear appeals.

In one company, each division vice-president may be of roughly equal stature and operate his or her own independent freedom. Consequently, there is relatively little power in the chief executive’s office. In this organization it would probably be advisable to acknowledge the authority of these vice-presidents rather than attempt to oppose it. Each would determine which ideas would be adopted and what the award would be. Some of the VP’s would probably support the program, others not. Without a strong central administration, the Suggestion System Administrator would probably be unable to sway those who resisted the program. He might better spend time on those who support it. A contrasting situation is a company with a powerful Chief Executive. In this case, a decision by a vice-president which seems arbitrary or unjustified may be successfully appealed to the top. It may even be possible to obtain the support of a special assistant in the Chief Executive’s office to use as an ally and communications channel.

It is also important to recognize that there may be a variety of power sources relevant to the suggestion system. One way of viewing this is to consider that an adopted suggestion goes through a five stage process.

(1) RECOGNIZING THE IMPROVEMENT

(2) DEVELOPING THE IDEA

(3) EVALUATION & APPROVAL

(4) IMPLEMENTATION

(5) AWARD

Stage 1 — Recognizing the Improvement

The employee with the creative insight is the key figure. Other persons can be critical in the following stages, however.

Stage 2 — Developing the Idea

It can be important that the proper groundwork be laid for subsequent evaluation. The key people here can be a staff officer with particular expertise or a senior advisor with a good background in the subject area.

Stage 3 — Evaluation and Approval

This is the most critical phase. It is essential that the idea be presented to the right people — the ones with the authority to decide and with the authority to implement. If this is done, implementation, stage (4), should follow easily.

Stage 5 — Determining the Award

This is another key point. Can the suggestion system administrator influence the award amount? In some organizations with a high level of delegation and accountability for program managers, the answer is probably not. The supervisor is responsible and should be authorized to make the decision. The Suggestion System Administrator may decide to initiate a series of briefings to assist supervisors in determining awards and provide advice when asked.

In other organizations, first-line supervisors may function more as straw bosses, merely to oversee the functioning of a group of people. In this case, the Suggestion System Administrator may find that award authority is best placed in his own office.

Some of the questions that apply to structure are:

Where are the power sources? Are the people with power the same as the ones with responsibility? What powers does the Suggestion System have? What are the roles of staff offices, such as budget and accounting? How do they relate to the Suggestion System? Which decisions are delegated? Is authority centralized or decentralized?

MEMBERS

Human factors are always among the most important considerations in an organizational analysis. It is no news that human psychology is an important factor in organizations and in suggestions systems. Nevertheless, we often do not deal with human factors very effectively.

While it is important to consider individual roles in the organization, ambitions, alliances, communication patterns and so forth, one of the most critical areas of consideration is motivation. A careful assessment should be made of the motivations of the various players in the suggestion process.

The Suggester

One of the reasons suggestion systems are successful is that they accommodate the needs of employees. The most obvious motivation is cash awards; but, in addition, praise and public recognition are important motivators. It is important to note, however, that where there is motivation there can also be frustration. If a good idea is rejected for inadequate reasons, delayed unnecessarily, or ignored, a highly motivated employee can become highly frustrated and perhaps actively hostile to the organization. The Suggestion Sys-
WANT A
GOOD CAREER —

GET INVOLVED
IN VALUE
MANAGEMENT

By Shari Strickland

SHARI STRICKLAND is a Program Analyst in the Value Management Division, Federal Supply Service, General Services Administration. Shari started her career as a Secretary Stenographer for the Office of General Counsel, GSA and has progressed to a career position in Value. She currently serves as the Regional Coordinator for ten VM Boards, nationwide. Other activities include a part-time job as a Sports Reporter for the Northern Virginia “GLOBE” Newspaper and her column is titled “Shari’s Slo-Pitch Chatter.” Shari’s hobbies include writing poetry, piano, dancing, hiking, jogging, cycling, and of course slo-pitch softball.

Recently I read Nancy Petrich’s article in VALUE WORLD and was quite impressed. I now join with Nancy to give you my side of learning and performing Value Management in the Federal Government.

Nearly five years ago I joined with Bud Brogan, to form the first Value Analysis Division in the General Services Administration’s Federal Supply Service (FSS). Believe me, it was frightening! I had worked for three years in GSA’s Office of General Counsel and five years in the Office of Standards and Quality Control. I hadn’t even heard the words Value Analysis, consequently, when Mr. Brogan was selecting a new Secretary, and gave a call for an interview I was quite surprised.

Lucky for me, as I look back, that my name was on a roster of candidates looking for a change in job assignment. I was unaware that GSA was creating a Value Analysis Staff within FSS. I went for the interview, thoroughly impressed with Mr. Brogan, and halfway decided when the job was offered that I would take it. However, I was still quite dumbfounded as to what Value Analysis was.

Before accepting the position, I questioned several management officials in FSS about Value Analysis. Everyone I spoke to was surprised that FSS was creating a VA Staff and thought I should jump at the chance to be in on the ground floor. With a staff of only two, there would be all kinds of possibilities ... and so I joined the Value team.

Since June, 1973, my career has not been dormant. Along with Value Analysis came a world of exciting personalities. It seemed I was thrust into a world of ever-changing proportion. I had been in FSS over 5 years and had not met all the officials. With my new job in VA it seemed that I was quickly meeting people and officials from everywhere; my own agency, service and industry. Value Analysis quickly took hold in FSS and the excitement was contagious. Our phones were always busy. I became involved with briefings, orientations, workshops, and the creating of Value publications, such orders, brochures and pamphlets.

The first VA workshop in FSS was scheduled for July 1973 and the instructors were considered among the finest in the industry — Value Analysis, Inc.; a company whose instructors are well known; ie Dusty Fowlkes, Wayne “Doc” Ruggles, and John Groothuis.

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Want A Good Career —
Continued from p. 14

Needless to say, the workshop was a success and VA in FSS was off and running.

By the middle of the first year, Mr. Brogan found it necessary to hire an analyst to handle a new element — Life Cycle Costing (LCC). Our work was quickly expanding and LCC was considered one of the fastest growing programs in Government and industry. By this time, I had progressed into a new position in a career professional series where progression was unlimited and you had only to learn and be willing to accept responsibility. Soon LCC was creating a flux of activity and it was necessary to add responsibilities. Our growth seemed phenomenal, and the responsibility always there.

In time, we made a government-wide change which deleted the words analysis and engineering and changed the function title to Value Management (VM). I found my job as an aide to the Director of Value Management to be so varied that from day to day our workload was ever increasing. There were so many things to learn and adaptability was important. I personally saw what could happen when VM was applied in FSS and became defensive when negative people discussed VM. As a member of the VM team, I knew that there would be roadblocks, but, they could be overcome successfully!

People in general were interested in VM. Not only could changes be affected, but there were certain monetary incentives available for those ideas resulting in savings. Ideas were being generated daily and we found it necessary, due to workload, to arrange with Personnel, to have management interns in training take rotational assignments in VM. The interns found VM an exciting place to work because they were able to identify with every office in FSS. Our business touches all areas involving specification changes, procurement, inventory management, stockpiling, customer service, supply distribution, disposal, public utilities, transportation, furniture, tools and automotive needs.

One intern liked it so well he decided to target into VM after his last assignment. His responsibilities would involve handling the Central Office Value Board as the Executive Secretary. This position involved a lot of work in setting up a system for identifying projects, monitoring progress, implementing projects and securing cash awards for implemented VM ideas. Our intern is now a Program Analyst and has been with the division for over two years.

With an employee handling Central Office activities, I was now free to handle the regional coordination of 10 VM Boards nationwide. I thoroughly enjoy this work and with the responsibilities offered, there is constant change and contact with all the management officials in the regions and Central Office. With so much diversification, I recently competed through the government’s Merit Promotion System for a Program Analyst position and succeeded. It seems the field keeps opening to more and more responsibility.

I have, in five years, seen a great deal of change in our Value division. With our ten regional VM boards and the C.O. Board, the ideas generating concern any and everything from soup to nuts. The savings to date of over $2,761,946 represent major specification changes. We in VM feel as if the iceberg has only been tipped.

Along with Life Cycle Costing in VM, we have added the Value Incentive Program and incorporated the Technology Division. With all these areas, our staff has continued to grow with savings exceeding expenses at a 20 to 1 ratio.

I see a rosy future for Value oriented programs; especially in the procurement of energy intensive appliances and equipment. VM, if encouraged in government use nationwide, could tackle and make significant contributions to saving precious tax dollars.

What else can I say except that VM is great and it works! I feel that I have a secure career ladder position in a professional series where I can only go ahead; ever learning, developing, and expanding my knowledge.

One of my favorite celebrities, Ethel Barrymore, said it so well, "It is what you learn after you know it all that counts." Another favorite quote ends this article for me and sums up my feelings regarding VM. It simply states "We ought to be interested in the future; for what is where we are going to spend the rest of our lives." - Charles Kettering.

I only wish more people had an employer like mine and the opportunity to meet such distinguished personalities who are involved in Value. I consider myself a very fortunate individual to have been made a member of a Value team.
Quality Circles Are Effective

by

F. CECIL HILL

Corporate Manager of Improvement Programs, Hughes Aircraft

PART II

RESULTS AT HUGHES AIRCRAFT

Last issue, we discussed concepts of quality circles. This issue will examine some general results of quality circle efforts at Hughes Aircraft.

The following statements by members of the Quality Circles are typical:

1. Quality Circles have successfully contributed to the focusing of attention on key problems. They act as a catalyst in obtaining ideas for the resolution of the problems and contribute to the setting of priorities for attention.

2. Circle members continue to be enthusiastic and are openly contributing ideas aimed at increasing operating efficiency, improving quality, and reducing costs.

3. Do Quality Circles support the supervisor?
   Unanimous yes.

4. Do Quality Circle members show an increased interest in workmanship?
   Unanimous yes.

5. Does a half hour appear to be an adequate period of time for a Quality Circle Meeting?
   The answer here was a near unanimous yes. However, there was some indication that this had not always been the case. Those who so indicated noted that the effort was becoming progressively more productive. One Supervisor pointed out that one idea can make all the effort worthwhile.

6. Is the practice of skipping the circle meeting during the last week of the month an asset?
   Supervisors indicated that this was a worthwhile practice, particularly in areas when there is a heavy month-end effort to meet schedules.

7. Is the agenda important for a Quality Circle meeting?
   The supervisors indicated that the agenda is an important item. Also, they noted that copies should be pre-distributed to the circle members to act as a reminder of any actions which must be taken prior to the next meeting.

8. Is it important that the circle pay attention to each member's suggestions?
   Supervisors were emphatic in giving a positive answer to this question.

9. Do Quality Circle members understand when ideas are not realistic?
   This question was generally answered in the affirmative. There was some indication

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Quality Circles Are Effective

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that employees do occasionally not appreciate some of the practicalities in application of ideas which require change. They felt that this is an area where the supervisor and facilitator must take a lead in explaining constraints and realistic requirements for implementation.

10. Is it important that Quality Circles continue to conduct one meeting per month after the conclusion of the regular-meeting schedule? (That is, is it important to keep the circle alive as an entity, even though the major problems have been resolved?)

Here again, supervisors stated they felt it was very important that the circle structure be maintained.

11. Does six months generally appear to be a reasonable length for having the three meetings per month?

Generally yes, but this should depend on the department and the problems.

12. Is a facilitator important for a Quality Circle meeting?

Supervisors were, again, unanimous in pointing out the importance of having a facilitator present at the meetings. They noted that a facilitator provides guidance, acts as a middle man in resolution of problems, and facilitates communications. They noted that his major importance appears to be in emphasizing upper management's support.

13. Are employees who do not participate in Quality Circles disgruntled or do they appear to have any negative feelings because they are not included in the circle?

The answer to this indicated that there were minimal problems. However, some supervisors noted that they explained the circle's philosophy and operation to the non-participants, and pointed out that the Quality Circle is voluntary. They explained that if people are interested in becoming a part of a circle they will eventually be given the opportunity to do so.

14. Is it beneficial for the quality manager, production manager, etc. to visit the Quality Circle Meeting occasionally?

Yes. Some managers have done just this and they report that they also gained a great deal of information from the meeting.

15. Should an engineer or specialist outside the circle be invited to contribute to the circle when a specific discipline is required?

Yes. In fact the supervisors noted that this was a key item in the resolution of problems. Also, certain design engineers indicated that they had profited greatly from their visit to a circle. As an example, one design engineer visited a circle, at the circle's request, to discuss a problem which resulted from a product's design. He immediately responded that he was surprised that the problem existed because the design feature that caused the problem was not critical to the product's function. (The circle members were, of course, not aware of the fact.) The engineer resolved the problem immediately by a simple design change.

16. Should supervisors spend significant time in following-up Quality Circle ideas?

The answer here was generally yes and some supervisors suggested at least one hour per week should be devoted to this type of action.

Special Emphasis

We have determined that the selection of the "right" facilitator is the most critical factor in the program. Each major area at Hughes has selected a facilitator from within its own personnel and no facilitator at Hughes is putting full-time into the Quality Circle effort. Facilitators are typically employees who are fairly senior in experience within the division or area. The following are attributes which contribute to the potential for a facilitator's success. The effective facilitator is:

1. respected by circle members. Typically he/she has a job with responsibilities which exceed those of Circle members.

2. able to cross organizational lines to help accomplish Circle objectives. He knows the organization's operation and its people well enough to gather information and contact the proper people to help achieve goals.

3. able to guide participants and train them.

4. capable of teaching the leader to resolve interpersonal conflicts, and is sensitive to "people" problems within the group.

5. a catalyst in the process of eliciting ideas from the group and the leader.

6. has a line of communication with management.

One note of caution is in order. "Part-Time" facilitators must be allowed adequate time to perform this role. Their management must be aware that time, in addition to the Circle meetings, is required.

Potential Problems

The critical component in a Quality Circle is management's genuine interest in obtaining the ideas from its workers. People have an uncanny ability to perceive insincere or token programs. Support must come from the group's top management, down through the supervisor who leads the group. A supervisor who is not committed to accepting circle members ideas can rapidly kill a circle. The supervisor and his management must provide a "safe" environment, where people are not afraid to express ideas. The author recently talked to a line supervisor, who wholeheartedly endorses Quality Circles. He found out early that circle members considered him to be one of the major problems. His ability to accept this and work with the circle, according to him, helped him and the operations in which circle members worked.

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REVITALIZING A SUGGESTION AWARDS PROGRAM

CHARLES E. MUELLER, JR.
SUGGESTION AWARDS COORDINATOR
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Second Place Winner in the NASS International Papers Competition, 1977.

The views and comments of the author do not necessarily constitute the endorsement or opinion of the City of San Diego.

This paper is written for new suggestion system administrators. It is written as simply as I felt was possible. It is not meant to insult with its simplicity; it is meant to convey the actual process gone through by me in this situation.

This paper is also written for established suggestion system administrators. I was in a situation where I failed to continue to cope with change and develop new methods of improving my program. However, if I had looked at my program in a very simple manner, things would not have developed as they did.

No new ground is broken in this paper. Hopefully, the old ground has been tilled so that new, fresh growth may appear. All readers are cautioned that this is my story, nothing more and nothing less. In fact, the story isn’t even over yet.

Fiscal 1976 was the worst year since 1969 for the Suggestion Awards Program. The number of new suggestions was down 16% from the Program average. First year savings were down 39% from fiscal 1975 and down 8% from fiscal 1974. The average evaluation time had ballooned to 139 calendar days. At that time, the Program had a new, inexperienced Coordinator who had never even worked for a company with a suggestion program. The only encouraging sign was the number of awards. This number was above the program average by 9%.

It was apparent that the Suggestion Awards Program was in need of some revitalization. This fact had been recognized by the previous Coordinator who had been trying for several months to convince the Suggestion Awards Committee to take action. The Committee and Coordinator had disagreed on how to accomplish the revitalization, resulting in no action. Thus, the Coordinator retired, leaving an enviable record and a new man with a problem.

Suggestion system administrators, experienced and inexperienced alike, face such problems throughout their careers. It really doesn’t matter whether the organization is a public or a private entity. Personnel change, situations change, philosophies change, and the suggestion system administrator must be able to adapt himself and his program to these changes if the program is to remain of maximum benefit to both the employer and employee. It is no different for the suggestion system coordinator than for any other program manager, you must adapt or be left behind.

I didn’t know where to start. Several months passed before I learned the current practices and procedures of the Program itself. I also started to review some of the documents accumulated over the years. Included in these were back issues of official publications of the National Association of Suggestion Systems, and the N.A.S.S. ANNUAL STATISTICAL REPORT. These documents turned out to be the starting point of the analysis of the Program.

It was then that I really got scared. My Program appeared to violate every practice encouraged by N.A.S.S. The program’s record keeping was sloppy and incomplete. Once a suggestion was sent to an evaluator, there was absolutely no follow-up. Promotion of the Program was inconsistent. The Program’s relationship with management was in a state of disrepair, and this state extended to the lowest level of supervision.

I quickly became aware that the job of rejuvenating the Program was not going to be simple or short range. In order to systematically approach the problems of the Program, these would have to be listed and specific strategies devised. I came from a financial management background, and began my list based upon program objectives and measures of program effectiveness. The list ended up looking like this:

(1) Low participation rate.
(2) Long evaluation period.
(3) Low level of Program support from management.

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(4) Relatively low dollar savings.
I was worried at first by the brevity of the list; but, after further consideration, I felt the list was too long, especially since the items on the list were interrelated. Items (2) through (4) lead to item (1). The final list looked like this:
(1) Low participation rate.
I felt much better when I realized there was only one area in which I had to improve the Program, at least initially. Unfortunately for me, but fortunately for the Program, I decided to make a list of all the items I could think of to improve Program participation. As the list grew and grew, my sense of relief turned to alarm. Seemingly everything affected employee participation. An abbreviated list looked like this:
(1) Long evaluation period.
(2) Lack of management support.
(3) Lack of promotional effort.
I realized that I was right back where I started. Under each of the three categories, I listed the major deficiencies I felt resulted in the current situation.
(1) Long evaluation period.
   a. No update system allowing the Coordinator to keep track of the progress of evaluations.
   b. No specific instructions or guidelines to aid the evaluators in evaluating suggestions.
   c. No incentive to encourage evaluators to evaluate suggestions.
(2) Lack of management support.
   a. No explanatory reporting system with which to update department managers on the Program records of their department.
   b. No establishment of specific departmental goals.
   c. No one ever asked for departmental managers' support.
(3) Lack of promotional effort.
   a. Failure to get promotional materials to the employees making suggestions.
   b. Low volume of promotional materials developed.
   c. Poor quality of materials; lack of originality in the development of materials.

It slowly began to dawn on me there were two types of problems I had to face. The first set of problems involved taking specific actions on my own to alleviate deficiencies. The second set involved taking specific actions to influence others to take action to alleviate deficiencies. I realized the entire process would take a number of years. It would involve making adjustments to the Program budget. All issues were complicated by the fact that I was not assigned full-time to the Program. Diligently, I set about formulating my plans.
I decided to start in those areas where I had control. The first thing I did was devise a method to update suggestions. This involved revising the current logging system to provide specific data, as well as implementing an update system. This was done simply with a card system listing the suggestions by month of receipt. Any suggestion not evaluated in a period of time was updated. The departmental/divisional contact was sent a memorandum listing the numbers of suggestions outstanding, the amount of time the suggestions had been in their possession, and copies of the suggestions themselves.
These contacts were asked for either a final evaluation or an interim report. Suggesters were informed of the status of their ideas when interim reports were received.
Since I was receiving a number of calls from suggesters requesting to know what happened to their suggestions, I devised a status sheet to attach to each suggestion. Information included on this sheet served as a basis to update suggesters when calls were received. It included receipt date, date sent for evaluation, evaluator's name and department, date of update memoranda sent, and all notes relative to communications with suggesters and evaluators. This status sheet served several purposes. It allowed me to provide exact and complete information chronologically to the suggester, thus giving the suggester and evaluator alike the feeling that someone was closely following the progress of the suggestion. The status sheet also allowed me to answer questions concerning the suggestion long after final disposition of the suggestion. This is extremely handy when the suggester requests re-evaluation or an idea is adopted after initial denial. All pertinent data were collected in a usable, chronological format.
Since there had been no update system in the Program, I systematically began to send out all old suggestions to departmental/divisional evaluators. I treated these as new suggestions and sent out new evaluation forms. However, on each set of evaluation forms I noted the original receipt date and that no evaluation had ever been received. The old suggestions then were placed in the update system and updated on a regular schedule with new suggestions. Some very old suggestions started receiving monetary awards, and suggesters who had long ago given up on the Suggestion Awards Program began to submit new ideas.
In addition, although the Program's evaluation forms did include instructions on the back, these instructions were not specific in nature. Many evaluations were being returned without enough specific information for the Committee to make an award decision. This resulted in much work for me and delays in providing awards to suggesters. Many evaluations had to be returned to departmental/divisional evaluators for further information. I revised the instructions, providing evaluators with a form to follow to estimate savings, as well as a basis with which to measure non-monetary benefit. As expected, fewer evaluations needed to be sent back. Additionally, I needed to spend less time reviewing evaluations and making adjustments.

The remaining immediate steps had to do with internal reports and budgetary output measures. The Suggestion Awards Program Monthly Report consisted of whole numbers only in new suggestions,

S.A.V.E.
VALUE ADDED ANALYSIS;
STAYING AHEAD OF COSTS

By

RICHARD G. BRADYHOUSE is President of the Chesapeake Bay Chapter of SAVE. He received his BS Degree from Loyola College in Baltimore. He has lectured at Northwestern University and presented VA topics for SME and ADPA. Dick is currently Purchasing Manager for The Black & Decker Mfg. Co.

PAUL MCCUSKER graduated from Loyola with a BA Degree. He served two years in the U.S. Army before becoming Project Engineer for C.M. Kemp Co. He joined Black & Decker as Value Engineer and has since been Purchasing Engineer, Technical Training Manager and presently Purchasing Manager Raw Materials at the Hampstead, MD Plant.

What do you do with a successful Value Analysis Program when the engineering hopper is full of recommendations to be evaluated, tested and implemented?

Value Analysis, by the nature of the method, will generate creative solutions to cost problems. Creative solutions in turn require engineering prove-out involving testing and reliability evaluations. This takes time and is in direct competition with new product development and special engineering efforts.

In situations like this do you reduce value analysis effort or is there an alternative? Here is a tack you can take that will continue to generate cost improving ideas and increase your company's profitability.

Move the focus or thrust of your program from the design of the product to its manufacture. You want to move out on the shop floor with the thought in mind that you are a cost detective looking for unnecessary costs, motions or activities. A good detective has trained himself to be observant.

Now, as he looks at an operation with both eyes open, he figuratively splits his vision. With one eye he mentally records the entire operation and its elapsed time. With the other eye he sees only those activities which add value to the product. Now he mentally calculates the ratio of value added time to the elapsed time. Too often he may find that this ratio is 1 to 4 meaning that the operator is contributing value 25% of the time.

Now he goes to work on the other 75% of time using value analysis techniques to eliminate these unnecessary costs.

This cost detective, shall we say, has become value added or cost sensitive. Now the trick is to develop an interesting program that will effectively "sensitize" others.

Value Analysis and Value Engineering has come of age as a proven technique to minimize cost while providing the necessary quality, reliability and safety in a product. In fact, the basic technique of the (5) five questions —

1. What is it?
2. What does it do?
3. What does it cost?
4. What else will work?
5. What does that cost?

can be applied, not only to product but to service areas as well, whether it be delivering fuel oil, or routing paperwork in the office.

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Value Added Analysis;
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Once a product has been designed we are faced with the task of manufacturing it. While it is true that many of the manufacturing parameters are specified during product design, for example, whether a part is bolted, riveted or welded; and so forth, there are many additional dollars to be saved by following the product through the shop.

The concept behind Value Added Analysis is cost reduction designed specifically for manufacturing plants. In application, Value Added Analysis becomes a marriage between Value Analysis and Work Simplification. It applies the same kind of effective logic to the manufacturing process. It is not limited to the shop floor but can product results in the manufacturing support areas, such as, Process Engineering, Tool Design, and Maintenance.

The term “Value Added” is borrowed from the accounting people and is used to indicate the increase in worth as raw material is transformed into saleable product through manufacturing operations.

One of the facts of life in manufacturing is that while we are adding value to the product we are also adding cost. The purpose of Value Added Analysis is to control the Value/Cost ratio to get the most Value for the least Cost in manufacturing. In Value Analysis we are concerned with “what” the product is; in Value Added we are concerned with “how” the product is made. We all know how difficult it is to get a product changed; in fact, that is the hardest step in the Value Analysis procedures.

The beauty of this Value Added program is that no design change to the product is required while any changes to manufacturing are within the jurisdiction of the plant. In many cases the results are instantaneous. This is possible because the program involves first line supervision and draws on the knowledge of operators and assemblers.

A format that has worked successfully runs 3 hours a day for 3 days.

The participants, usually about 20, are divided into teams of 3 to 5 men. Most of the first day is spent in the classroom getting the fundamentals of how the program works. Before the end of the session the teams are assigned to areas of the shop for project selection. This is a major difference between Value Analysis and Value Added. The projects are selected by the participants. This increases the motivation to complete “their” projects.

The second day is spent in the shop areas selecting the projects. Some teams come up with 4 or 5 projects although they are encouraged to select no more than 3.

On the 3rd day, the projects are developed à la the VA technique and a recommendation made as to the method and time of implementation.

The total program is short and the emphasis is on getting the quick savings rather than the big savings. The rationale is that it is better to have many small savings implemented than one large “potential” that is stillborn because the product died.

During the program there are three forms used to record information and aid in justifying a project for implementation. The forms are simple and need not be followed in every case. The option is given to report savings in terms of dollars or hours since many of the projects involve eliminating operator time to perform a task.

In the initial session, prior to project selection, a great deal of emphasis is placed on the concept of “sensitizing” the participants. This follows the classic approach of first overcoming roadblocks and then moving on to creative thinking. Several role playing situations help to point up the Value/Cost aspect of typical shop operations. During the role playing a participant will perform a simulated shop operation, e.g., applying a pressure sensitive label to a part or fastening some parts together. While the “operator” is performing the task, two other participants are timing the operation by means of (2) large clocks which are independently controlled. One clock is marked Cost and the hand runs continuously while the operation is being performed. The other clock is marked Value and only runs when the operator is, in fact, adding value to the part(s). By reading the timer at the end of the operation the participants get a real feel for the Value/Cost ratio.

As a climax to this sensitizing exercise, the participants are shown several actual shop operations via 8mm “home” movies or CCTV, and then a brief discussion is held on possible ways to improve what was seen. We should mention as a warning that movies or CCTV to be taken in the plant should be cleared through Industrial Relations.

In conforming to the VA technique but shifting from the “What” to the “How”, the five questions would take a slightly different form.

1. What is the operation?
2. How is it being performed?
3. What does the operation cost?
4. How (or where) else could it be done?
5. What would it cost?

As you recall, in VA, the answer to the second question leads to the real crux of the matter — the function of the part. To keep everyone comfortable in the VAA program the functional analysis has been applied to shop operations. Instead of primary and secondary functions we talk of Essential and Subordinate operations.

By definition, an Essential operation is one that is necessary because of a design drawing or specification and one which the manufacturing plant would not have the option to change. Typically, this would be a hole or a finished diameter in a part. If the Engineering drawing shows a hole, then manufacturing has to put the hole in the part.

Subordinate operations, on the other hand, are those operations which are required because of the way the Essential operation is performed.

How many ways can a hole be put in a part? For starters you can drill,
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bore, burn, punch; use chemicals or electricity, etc. With each of these methods there is a separate set of operations and, as you can imagine, they vary considerably. The two words (verb - noun) analysis can be applied in toto.

The objective is to eliminate as many Subordinate operations as possible and still meet the requirements of the Essential operation. In this phase of the program, the principles of Work Simplification are employed to great advantage.

The third question requires standard cost data and cost center rates to get an accurate answer. This is a straightforward procedure.

Question four really opens up some challenges. The answers will run the gamut from having the operation performed by an outside vendor to getting it “free” by performing it within an existing machine cycle. Many Subordinate operations are simply eliminated.

Finding the cost for the improved operation can be a problem. For this reason the option was given to express savings in time. One thing about manufacturing people, they understand what it means when you can free up shop hours.

The involvement of line operators in improving manufacturing techniques brings back to our highly automated, impersonal production lines some measure of individual and team competitive spirit. The improvements resulting from this program are not perceived as a threat to the employees. Many times the operators do not realize they have the prerogative to initiate changes which will result in increased productivity and/or less operator fatigue. Naturally, any line changes have to be implemented through supervision.

Because of the quick results of this program, CCTV has proven very effective in recording the before and after of team projects.

The ability to show actual results during the management presentation at the end of a 9 hour course lends credibility to the program.

Talking about the Value Added Program in this way may be enough to whet the curiosity of some to give it a try. For those who need a little more encouragement we can cite some actual cases from the VAA Program.

As a start we’ll list a few of the “instant savings” type.

A team found that at the end of two (2) assembly lines, running side by side, there were two (2) packers. Each was packing a similar product. Because the lines were set up independently and each called for a packer there were two (2) people involved. Actually the combined volume to be packed could easily be handled by one (1) packer.

The department foreman made the change immediately with a $3,645 saving.

In another case a simple rearrangement of work at a drill and tapping station saved .012 minutes per part and resulted in less operator fatigue by allowing him to use the left hand more efficiently.

Instant savings resulted when a supervisor OK’d the physical moving of a drill press next to a lathe operation. One operator performed deburr and ream operations “free” during a turning operation. Combined with the elimination of handling and moving the parts this netted $5,499 savings.

Not all savings can be accomplished within the 9 hour course. One savings involved moving a large plastic injection molding machine 180° around on its base. This allowed one operator to tend two machines. After deducting the maintenance charge to move the machine this project netted $14,420.

A good example of reduced handling involved a heat treated part. The last operation on a part prior to heat treat was performed just outside the heat treat department. The parts were stacked in tote pans and moved to heat treat where someone had to unpack the parts and stack them neatly in a special wire basket. By having the machine operator load the parts directly into the wire basket one handling was eliminated. Savings of $2,325 was recorded.

These few examples are typical of the kinds of projects and the resulting savings that can be generated by the Value Added Analysis program. This approach to cost reduction is a natural adjunct to any Value Analysis or Value Engineering effort. It could provide a continuing source of savings at a time when they are most needed.

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Middle management which is not committed to allowing the supervisor-leader enough time (in and outside the circle) to accomplish necessary actions can cause failure.

Any organization which takes a defensive stance in relation to input from circle members or to ideas which require change will gain little from the circles.

Management must support the facilitators, particularly during the early stages of the circles. The adept facilitator can, in time, teach the defensive or non-responsive supervisor to be an effective circle leader. This process, though, requires a sensitive and patient facilitator, and a supervisor who is somewhat tractable.
Customizing Your Suggestion System

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System Administrator should be attuned to these facts and consider ways to combat frustration.

Some of the things that can be done are:

- Be sure that employees are kept informed of the progress of their ideas.
- Help the employee develop and defend the idea. It may be a great idea, but the employee simply cannot articulate his position.

- Issue awards prior to implementation if there will be a long delay between adoption and implementation.
- Always acknowledge receipt of suggestions.
- Soften the language of an unnecessarily harsh evaluation.
- Try to insure that evaluations are based on facts, not just perceptions.

The Evaluator

We recognize that employees will be motivated to submit ideas by recognition, praise, a sense of achievement, and cash awards, but we frequently fail to recognize that other persons in the suggestion process must also be motivated.

Resistance to change is a common phenomenon. Evaluators are frequently the supervisors of the organizations where the suggestion will be implemented. They are key figures, but their motives are frequently in opposition to the objectives of the suggestion system.

A supervisor may consider an implemented suggestion as an indictment of his/her supervisory abilities. If the improvement is significant, then why wasn’t it made before? If the organization is operating at improved efficiency now, then it must have been less efficient before. Is the supervisor to be blamed?

The Suggestion System Administrator can counteract this resistance with a number of strategies. If the organization has a supervisory evaluation system, one effective action would be to include participation in the suggestion system as a factor for evaluating performance. Other mechanisms are:

- Issue supervisory awards for accomplishment
- To establish goals and provide for top-level recognition when achieved
- To allow supervisors to participate in the suggestion program
- To avoid win/lose confrontations between the evaluator and the suggester

SUMMARY

Since every organization is unique, it is important that the Suggestion System Administrator design the system to fit his/her own specific organizational environment. Considering the four primary organizational variables - purposes, structures, members, technology-can help the Administrator focus on the key factors which must be accommodated in the system.

(The views and comments of the author do not necessarily constitute the endorsement or opinion of the Department of Housing and Urban Development or the Federal Government.)
“RACING FOR VALUE — 1978”
INTERNATIONAL CONFERENCE
MAY 7-10, 1978 INDIANAPOLIS, IN

Society of American Value Engineers

Hosted By:
CENTRAL INDIANA CHAPTER
Conference Site:
HYATT REGENCY INDIANAPOLIS

SUNDAY, MAY 7 — CVS Exams, “Early Bird” Seminar by Art Mudge, National Business Meeting, Exhibit Opening and Reception.
MONDAY, MAY 8 — Opening General Session, Technical Sessions, Presidents Luncheon, Awards, Reception, Awards Banquet, Entertainment.
TUESDAY, MAY 9 — Technical Sessions, Educators Luncheon, Awards, International Reception, Speakers Reception.
WEDNESDAY, MAY 10 — Technical Sessions, Chapter Officers Idea Interchange, Special Luncheon, Awards, Conference Close.

Keynoter: Richard B. DeMars, Chairman and President of Geupel-DeMars, Inc.; Construction Managers of the Merchants Plaza project in which our Conference is being held.

Mr. DeMars has served as a National Director of the Associated General Contractors of America and was a member of its 21-member executive committee. He also was Chairman of AGC’s Special Contracting Methods Committee which is responsible for developing definitions, standards and procedures in Construction Management for use by AGC members.

Mr. DeMars is extremely active in helping guide the growth of Indianapolis. He is past president of the Indianapolis Chamber of Commerce and is current president of the Greater Indianapolis Progress Committee.

Special Attractions:
• Ladies — be sure to include your wife in your conference plans and turn her over to Bea Smith and her committee!
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• Newcomers — A special opportunity to meet and talk with the Father of VALUE Engineering, Mr. Lawrence D. Miles.
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<tr>
<td>Member Registration Fee</td>
<td>$150</td>
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<td>Non-Member Fee*</td>
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<td>One Day Only (includes luncheon)</td>
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<td>Student: All Technical Sessions Only</td>
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<td>Student: 1 Day Technical Sessions Only</td>
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<td>Ladies Program (three days)</td>
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*Non-SAVE members may apply $40 of their registration fee ($190 or $180) toward Society membership if applied for prior to end of Conference.

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Revitalizing A Suggestion Awards Program

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monetary awards, amount of awards, number of denials, etc. No official records were kept on savings; specific departmental statistics were not kept. I revised the monthly report to collect statistics by department/division. Several advantages showed themselves immediately. It became extremely easy to identify those departments/divisions having evaluation problems merely by counting the number of open suggestions. Once this fact was brought to the attention of the Suggestion Awards Committee, it authorized me to speak with the managers of problem areas. Slowly, evaluations began rolling in and employees of these problem areas once again began to send in their ideas. Departments and divisions began to request copies of this monthly report to keep track of their own statistics.

Budgetary output measures suffered from the same problems as the monthly report. Items were listed in whole numbers. Although these measures were somewhat informative, they did not really let top-level management know how the Program was doing. Two significant measures were added: the participation rate and the ratio of dollars saved to dollars spent in administering the Program. Once these figures were included in the budget document, the stage was set to start the second phase of the revitalization.

Promotion of the Suggestion Awards Program was sadly lacking. I felt that to really give the Program a boost required the support of top-level management. The former Coordinator had attempted to do this, but he had tried to convince the Committee to have the City Council support the Program along with revising the Municipal Code Sections governing the Program. This strategy was not popular with either the Suggestion Awards Committee or the City Manager's Office. Such detail was required for an appearance before the Council, that no support could be gained. My strategy quickly changed; for several months at Committee meetings the subject of promotion was broached. However, emphasis was placed on the promotion coming from the City Manager's Office. After several sessions, the Committee authorized me to prepare promotional materials for the City Manager's signature along with a cover memorandum for the Committee itself.

The cover letter from the Committee to the City Manager was very simple. It outlined some of the problems the Suggestion Awards Program was having, as well as outlining the areas in which the Program was trying to improve. The first memorandum for the City Manager's signature was sent to all Department Directors, Assistant Directors, and Division Heads. It requested the following things:

1. enthusiastic support of the Suggestion Awards Program,
2. the development of internal promotional programs for departmental employees,
3. giving employees credit on their performance evaluations for suggestions made, and
4. prompt evaluations of all suggestions.

The second memorandum was sent to all employees with their paychecks and requested that employees:

1. actively search for ways to improve City operations, and
2. send in their ideas through the Suggestion Awards Program.

In addition, all employees were told about the Manager's memorandum to Department Directors, Assistant Directors, and Division Heads. Concurrently with the publication of these materials, I began to develop a cross-reference file of all suggestions by suggester name. This cross-reference file aided me in responding to suggester inquiries where the suggester could not provide a suggestion number, as well as providing a means to inform departmental personnel for performance evaluations.

The response to this handout was so favorable, especially from suggesters, that handouts to all employees have become a regular part of the Suggestion Awards Program. Four handouts are planned annually. Response has been favorable each time one is published. Naturally, the effectiveness of the handout revolves around the originality of each idea. Incorporated into the handouts are special promotional contests. For example, the Suggestion Awards Program publishes an annual calendar where all holidays, paydays, and pay periods are identified. Printed on the calendar is a promotional slogan for the Program. This year we sponsored a slogan contest open to all employees. All of the normal rules of the Program were applicable. One hundred ideas were received in a three-week period. Surprisingly, the number of regular suggestions increased during the time period of the contest. This worked so well that further promotional programs were planned.

Two other areas of improvement in promotion have been pursued. An introductory letter from the Coordinator is sent to all new employees. It explains the Program and asks employees for their ideas. A suggestion form is attached to the letters.

Also, for the first time, promotional materials are being sent to employee unions. These are new programs, and no results have been measured.

The results of the revitalization process have been measurable.

New suggestions received: +41% over the previous fiscal year.

Number of monetary awards: +61% over the previous fiscal year (highest in the Program history).

Average evaluation time: -50% over the previous fiscal year.

Savings: +91% over the previous fiscal year (highest in the Program history).

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Revitalizing A Suggestion Awards Program

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The lasting effect of the steps can not be measured, at least not yet. The surface of the revitalization program has barely been scratched, and I would be the first one to admit there is a long way to go. But I am continuing to plan and make my lists. Some future plans include:

(1) An award program for suggestion evaluators and departments/divisions based on key performance statistics.

(2) The development of a brochure for supervisors promoting the Suggestion Awards Program and encouraging supervisors to encourage employees to participate.

(3) Establish departmental/divisional goals with department managers to improve department records.

(4) A cross-reference file by subject on all suggestions to reduce the duplication of review of similar ideas.

(5) For each department/division, hold an open house in the field where employees may meet the Program Coordinator, and the Coordinator can answer employee questions and provide an on-the-spot reference to employees.

I fully realize my work will never be done. Improvement must be continual, on-going. Surprisingly enough, it is almost a case of "practice what you preach".
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