

## **Creating and Maintaining an Effective and Successful Value Management Program**

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James (Jim) Rains is President of the Advanced Value Group, LLC (AVG). AVG specializes in value engineering and synchronous process improvements (lean manufacturing) in the factory and/or office environment. We believe in LeanVE. AVG also has extensive expertise in material flow analysis to streamline material handling flows and reduce costs associated with material handling. Training in target costing, which includes Quality Function Deployment and Voice of the Customer is also part of AVG's long list of services. The services of AVG are performed around the globe. Jim is retired after more than thirty-one years with General Motors. He has served on the SAVE International Board of Directors in several capacities, including President. Mr. Rains became a Certified Value Specialist in 1988 and is currently a Life - CVS. He was elected into the SAVE College of Fellows in 2002. Jim was awarded and recognized by SJVE in 2001. He is a member of the Lawrence D. Miles Value Foundation Board of Directors, Executive Committee and Treasurer.

### **Abstract**

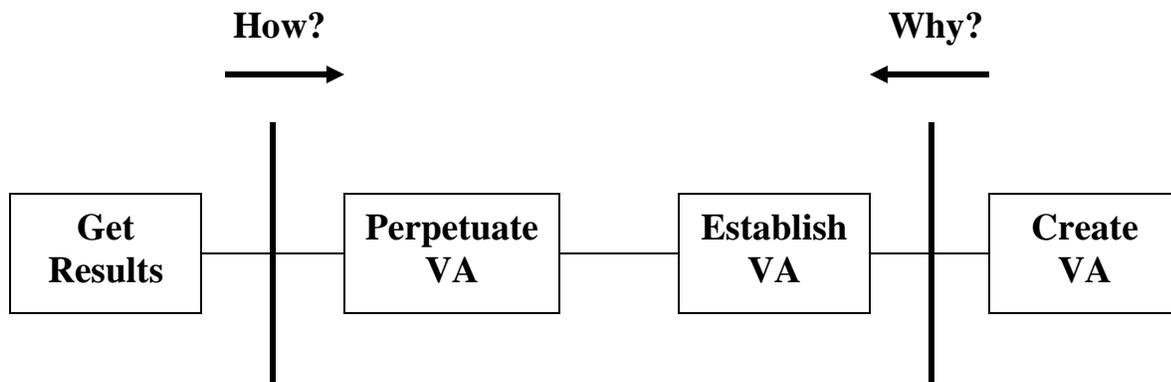
The Value Methodology is beginning a rebirth of growth across industry. Many companies are re-adopting or establishing for the first time value improving groups with responsibilities to initiate and maintain value analysis (VA) programs within their organizations. The author worked in a successful VA program that existed for over 20 years. He has seen many corporate programs that have disappeared for various reasons. This paper will identify the key steps to create a VA program for your company. A second purpose of this paper is to identify elements of a successful program to insure longevity and perpetuation. Finally the author will list key responsibilities for those that work in a value improving department. The Value Methodology is a term offered by SAVE International about ten years ago as an umbrella definition for what we do. The remainder of this paper will use the term value analysis because that is the term that was first used for our methodology.

### **Introduction**

As we know, value analysis (VA) started in industry at General Electric under the guidance of Lawrence D. Miles. Through the '50's, '60's, '70's and most of the '80's value analysis flourished in industry. During that time construction-oriented value analysis got its roots and if the membership of SAVE International is any indication it surpassed value analysis usage in

industry in the late '80's and has continued that dominance until today. The reasons for this are numerous, but perhaps the most obvious is the influx of other value improving practices such as lean manufacturing, Design for Assembly/Manufacturability, Statistical Quality of Control, Design of Experiments, Taguchi, Six Sigma, Design for Six Sigma, Theory of Constraints, Benchmarking and others. All of these techniques and methodologies competed for projects, resources and dollars within companies. It is rare that these other methodologies will be used in construction even though construction projects would benefit. Since value analysis was not the latest "process of the month" it was put on the back burner and often replaced with one or more of the new disciplines. Now I am extremely happy to report that value analysis is making a come back into industry, in a big way. Companies that used value analysis before are coming back and others are using it for the first time. Again the reasons for this come back are many, but it is my opinion that companies are again realizing that value analysis works the best, is the most comprehensive, most diverse and flexible, offers the highest return on their investment and when used in conjunction with many of these other methodologies even better results are obtained. Due to this resurgence of value analysis, the purpose of this paper is to help companies that are rejuvenating an old program or beginning for the first time to put in place a structure and process that will insure the successful longevity of value analysis in their organization. We believe that "success breeds success" and to get a value analysis system started it is extremely important to get it started the right way. Like anything in life there are right and wrong ways to do things and there are good and bad ways to do things. We want to set the record straight and show that there are degrees of right or correct ways and to show the best ways to launch a successful value analysis program and what needs to be done to keep it in place.

When we look at the simple critical path on the FAST Diagram depicted below we can see the main points that I intend to cover in this paper. First please note that Create VA is an input and an assumed function outside of the scope of this paper. Fortunately for us, Larry Miles did this for us well over 50 years ago.



Thus the will focus on the other two main critical path functions "Establish VA" and how to do that in your organization and "Perpetuate VA" or in other words, how to successfully organize your process so that it will always be there. This paper will be divided into three sections; the first; how to Establish VA, the second; how to Perpetuate VA and third; an overlap of these two

critical functions is to discuss how the VA department within your organization should be positioned and organized.

## **Establish VA**

There is nothing more important than getting off to a great start. Ask any athlete about the importance of a great start. Even if you have already begun your value analysis program you will be able to use the information in this section to perhaps go back and reassess what you have done and make mid-course corrections. Obviously for those just getting started, I urge you to follow these steps.

1. Obtain top and middle management support – Between the two of these gaining top management support is the easiest. But I include middle management support because without the middle managers on-board the program will not go very far. You may say that should not be a problem if the top leadership is supportive and participative, but over my twenty five years of working with and being involved in various value analysis programs I have found that the middle managers are the key to success or failure. It must also be stated that you need more than leadership support. You need leadership participation. That participation should include especially in the beginning, direction on project and team member selection, speaking at workshops and assisting to overcome roadblocks to recommendation implementation.

The reason why middle managers hold such a key role is that in most companies, these people control all the resources. They get to decide if key projects get to be worked on; they get to decide if key team members can be made available; they get to decide if financial resources can be expended; and they get to decide what gets implemented. In other words for the value analysis program to be successful all key middle managers must be believers and avid allies.

2. Select a VA Manager – This is one of the most important upfront decisions an organization must make to be successful. W. G. McMurry wrote, “Realistically then, if value engineering is to achieve its full potential as a significant contributor to the cost effectiveness and profit objectives, its concepts, techniques and methods must be clearly defined, thoroughly understood and resolutely applied by each individual who is to be associated in any way with the Value Engineering expedition.” This comment is most especially true for the VA Manager. This person must exhibit a broad range of skills and attributes. It is important to note that in the final analysis, people are VA’s most important element. The most important traits that a VA Manager must exhibit are: strong leadership skills, ability to communicate effectively both orally and written, ability to explain details clearly, understanding of group behavior and team dynamics, credibility within the organization and finally the ability to develop a *passion* for value analysis. Without this passion that is honest and enthusiastically demonstrated at all times the VA program success will be diminished. You should note that these traits are more directed to the soft side skill set rather than technical knowledge. This does not mean that

technical knowledge is bad or not required. It does mean that technical knowledge is less important when compared to the mentioned character traits.

3. Develop a corporate/divisional policy – The top leadership support and dedication to value analysis needs to be displayed in writing. I call the written document of support for value analysis a corporate policy statement. This statement demonstrates to the entire company that value analysis is important and why it is important. It is not enough to have a written document, since it does no good to have a written document if it is not used or available to the organization. The document needs to be written so that the use of value analysis is not restricted to any one part of the company. It needs to be written so that everyone can feel that they are a part of value analysis and not excluded.

The following is taken from the Lawrence D. Miles Value Foundation website.

**What is a Corporate Value Policy?** A visual record of acceptance by the highest management of a company.

**Why Have a Corporate Value Policy?** To clearly indicate corporate support and commitment.

**Who Needs a Corporate Value Policy?** Since the VM organization will be a staff function it will require a strong policy statement to get cooperation from line functions.

#### **Objective and Purpose**

- To set up the staff function.
- Provide for assistance in relating to other line elements.
- Set up budget.
- Show strong corporate leadership.
- Set up accountability.
- Sustain positive effort

#### **What Does a Value Policy Statement Contain?**

- A statement of compliance with government and contractual obligations.
- Establishes value programs in each corporate division
- Sets goals such as percent savings of sales.
- Describes the essential elements of a value program:
  - a. Suitable positions with functional responsibility
  - b. Selection and appointment of qualified personnel
  - c. Broad educational programs in value techniques
  - d. Establish and implement procedures and controls to minimize all unnecessary product costs
  - e. Definitions as required

## **Goals and Objectives of Training Staff**

- Receive and provide training
- Motivation to the organization
- Development value improving techniques

In Exhibit A you will find an excellent example of a generic corporate policy. This policy is brief, all-inclusive and straightforward. Please be aware however that words without substance are worthless. That statement could not apply more than to this situation. Any organization that believes that just by having a corporate policy everything will take care of itself is not going to be successful. Having a written policy statement for the use of value analysis is extremely important, but as a stand-alone document, it will not yield results.

4. Develop specific value analysis departmental goals – First to have VA departmental goals, you have to have in place a VA department. My preference and it is a very strong preference that value analysis and all other available value improving methodologies that have already been mentioned need to be co-located. Thus this is not just a value analysis department. Some companies have what is called a VIP department, where VIP stands for value improving practices. By having all the value improving methodologies housed together, project and resource competition is avoided. I have seen in many companies where value analysis, lean and six sigma all report to different departments and compete against each other for projects, people, resources and who gets credit for results. Thus keeping all the major methodologies working together you have the opportunity to integrate and blend them when applicable. So if they should be in one department, what department should that be. This is a tough question to answer. If it is placed in engineering, then the tendency will be to only work on product design projects. If it reports to procurement, then the tendency will be to only work with the supply chain. If it is in manufacturing the tendency will be towards process improvements. There is not one sure answer, but given the very generic nature of the corporate policy and knowing that value analysis needs to be used throughout the value chain the correct answer is the department that can be the most unbiased. When I worked for a component division of General Motors, the VIP department including value analysis was in Industrial Engineering at the divisional level. This part of the organization was determined to be the most unbiased in terms of how and where to apply value analysis. Thus depending on your organization structure, place value analysis and all other value improving practices together in an area that will utilize all the tools in all areas of your business. One staff area that I do not recommend is Finance. There are many reasons for this statement and thus may become a subject of another SAVE paper.

Selecting goals for the VA group or department is very important. My advice is not to give this group cost savings and avoidances goals. Most organizations do not follow this advice. Generally the VA group is not responsible to implement change, thus you do not want the VA department to claim savings that resulted in the efforts of others in the organization. The best metrics of performance for the VA group need to relate to how many people they train, how many teams participate through workshops, what is the cost

per team trained, how well do they support the implementation of workshop proposals. In other words the VA department should be there to help the rest of the organization achieve its cost savings and avoidance goals and needs be measured on how well it does just that. By reviewing the list of job responsibilities later in this paper, one will better understand that the duties of people working in a value improving department are broad. Value analysis should not be given credit for any savings. VA is a tool that people use to gain an improvement in value. Thus all the credit needs to go to the people that worked on the value analysis team and those whom were instrumental in making the change occur. It makes no sense to have different parts of the organization squabbling over what department gets credit for the savings. This effort is a waste and drain to the productive nature of the enterprise.

5. Develop timeline or project plan – Let’s say you have just been appointed as the new value analysis manager at your organization. You have just learned how to spell VA. You have a very important journey to make. Just as an airline pilot files a flight plan for the next journey, you must also develop a detailed plan that will get your department up and running successfully. This paper cannot go into all the minor details of what needs to be a part of your plan. At a minimum your project plan needs to include the items listed in this paper. But perhaps on the top of the list is to begin a self-education plan. Just by attending this conference you are well on your way towards accomplishing this first important task. SAVE International conferences are the best place to learn about value analysis. All the major practitioners from around the globe attend, thus the opportunity to learn and network is huge. Take advantage of this golden opportunity.
6. Developing a list of potential projects is the next step. In most manufacturing organizations, initially the list will most likely include product design projects. Once your organization gains confidence, then unusual projects should be addressed such as complicated procedures that include development processes and procurement systems. Then finally with the integration of lean and six sigma methodologies process improvement projects should be attempted. Service organizations should initiate projects with procedures that are complex and difficult to manage. Then expand to all areas of the business. When starting a new value analysis program leadership needs to be actively involved. Passive involvement at this stage will yield sub-par results. **If value analysis is important to the business, then it must be treated with the respect that it deserves.** Failure of upper management to understand and realize the importance of this methodology and its impact on the bottom line of profitability and customer satisfaction, then certainly the organization will not realize the full benefit of adopting and using this technique.
7. Prioritizing the list of projects developed in step #5 based on probability of success or against pre-determined criteria becomes the next critical step for a successful launch of value analysis. Each organization must develop a set of criteria to rank each potential VA project. Key criteria needs to be development to insure the best project to expend resources to, is selected.

8. Examples of criteria are:

- The product should have a sales forecast of at least three years.
- The objective should be able to be measured quantitatively for cost and or quality improvement.
- Does the current design meet customer expectations? Are there customer complaints that need to be addressed?
- Is the product in a profitable position?
- How does our current product stack up against the competition in terms of price, cost, performance, quality and deliverability?
- Do I have company/supplier resources (time, people and money) available to implement change?
- Has my design been updated recently?
- Am I using common components?
- Is the product difficult to manufacture?
- Are my suppliers looking for a price increase?
- Weakness in the product or excessive warranty costs may target the product for study.
- Excessively close tolerances may not add value to the product.
- Our patent position must be considered.
- Are tolerances excessive and not adding value to the product
- Does the organization have resources available to implement changes developed by the VA team
- Value analysis should not be used to try to implement a “Pet Project.”

When the criteria is selected each criteria should be fully defined, so that everyone involved in the project selection knows exactly what is meant by each criteria. Each criteria although all are important need to be assigned a “Relative Weight of Importance”.

Criteria	Wt. Of Importance	Project A	Project B	Project C
Sales Vol.	8	5	7	8
Resources	10	7	4	10
Quality Issues	7	8	5	9
Project Scope	9	6	9	4
Total		220	212	263

Continue to score each project candidate for each criterion. Multiply each project score for each criteria times that criteria’s Weight of Importance. Total each multiple to get a total score for each proposal and under normal circumstances the projects with the highest score should be selected first for VA activity.

This same process should be used for evaluating projects in the various other categories such as process studies, procedure studies and so on.

9. Once the best projects are selected the very important step of forming a multi-discipline team from various departments and backgrounds comes next. Team member selection is critical to success for a value analysis team. Personnel from several different departments should be considered when structuring a VA Team, because “Value” is not any one department’s responsibility, but is shared by all functional groups within the company.

Teams consisting of people from engineering, marketing, manufacturing, industrial engineering, purchasing, cost accounting or other administrative functions, can be assigned to the study projects. Normally, 5 to 7 person teams work well in VA studies. Please note that in some instances more people are tolerated. The technical knowledge required for the team should be dictated by the projects selected.

Typical mix of team participants:

<u>Study Project:</u>	<u>Engr/Tech</u>	<u>Mfg/Prod</u>	<u>Adm/Staff</u>
Design Studies	50%	25%	25%
Mfg Process Studies	25%	50%	25%
Procedure Studies	(Dependent upon subject.)		

10. Make sure that the teams are well prepared and have the appropriate information. This is best accomplished by having a pre-workshop meeting that involves all team members. Most consultants and value analysis facilitators have generic checklists. The author of this paper has checklists that are project oriented specific. For example if the project is design oriented then a design oriented checklist is used. However, if the project is process or procedure oriented then generic specific checklists for those types of projects are used. Construction oriented projects have their own checklist.
11. Make sure excellent facilitators are available and hire consultants if necessary. The expenditure to hire an excellent consultant to lead a value analysis study is minimal when compared to the results that the organization will realize once the proposals that result from the value study are implemented and when a fully institutionalized process is put in place. Thus consultant fees are an inexpensive investment when compared to the output generated from the workshop. The ROI is large. Care should be taken by the organization to select the best consultant for the expected results that the organization wants to achieve. For example manufacturing, industry and service organizations should hire consultants with a center of expertise in that environment. By the same reasoning, construction oriented firms and projects should hire consultants with a civil engineering or architectural background. While the value methodology job plan is the same for essentially all projects, the consultant needs to be able to relate the job plan to the projects they facilitate. For example the author of this paper has extensive experience and expertise in applying value-improving techniques to manufacturing, industrial and to some extent service organizations. He knows and understands this business, the language, the finances, and the environment both competitively and politically. When called upon to work on construction-oriented projects he is much less comfortable.

Some companies feel that they can learn value analysis from a book and thus select a person to read and learn VA, then begin to perform workshops within the company. This concept is false. It takes several experiences in participating in value workshops to really understand how the methodology works to get optimum results from a team. Attending a single Module I Workshop and completing certification, as an Associate Value Specialist (AVS) is only the beginning of the required knowledge and training. This author attended three Module I Workshops and Train the Trainer training before he facilitated his first workshop.

12. Make the first workshop a special event. My first workshop was in April 1980, over 25 years ago. I felt extremely fortunate to be selected by the management of my company to participate, despite the fact that there were 10 teams in the workshop with about 70 participants. Every Executive Director from the General Motors division that I worked for participated in the workshop, which added to its luster. The workshop was a new and exciting event. It was held in a downtown hotel and included evening events. It was simply a “special” event. Your organization does not have to go to this extreme to make it special, but it certainly needs the involvement of top leadership. Top leadership presence at the workshop gives the event credibility. If you have chosen a skilled facilitator, the workshop itself is the easiest element of the entire process, especially if you have selected excellent projects and appropriate team members. All the hard work is executed before and after the workshop, but a skilled workshop facilitator makes all that effort worthwhile.
13. Ensure ideas generated at the workshop have firm action plans and teams are committed to implement them. Once you conduct the workshop the most important element by far is to insure the implementation of the proposals generated at the workshop. It is most important before concluding the workshop to prepare detailed action plans. Scheduling team meetings within two weeks from the end of the workshop is also very important. Here the team can work on their action plans, report status and work to overcome obstacles and roadblocks. Finally schedule another presentation to company leadership between 30 and 45 days after the workshop. This meeting will keep the team on track and provide the incentives to drive towards project completion.
14. Work closely with each team after the workshop to help overcome roadblocks. In most organizations it is the VA team’s responsibility for the implementation of workshop recommendations. (Some organizations have their value analysts responsible for all elements of implementation. I am not a proponent of that.) It becomes the VA Manager’s job to assist the teams when required. The VA Manager should have access to leadership to overcome obstacles that bog down project implementation.
15. Provide recognition to teams for successful accomplishments. An important rule to remember is to always give the teams that developed and implemented the VA proposals all the credit for this accomplishment. As a VA Manager never take any credit and not give value analysis any credit. VA is just a tool, yes a very good one, but the people are

the ones that made it happen. People will get results without VA, but VA will never get results without people. Thus give the credit where it belongs.

16. Report results to the entire organization. The VA Manager needs to keep up with every team that is working on VA workshop proposals. Status reports and savings completion reports are critical. Remember, however, the rule just mentioned in Item #14. Results can be reported via numerous methods. Use your creativity in doing so.

17. Plan for the next workshop. Now the repetitive cycle of continuously conducting additional VA workshops begins. The timing of these next workshops should have been planned for in Item #4. Use the prioritized project list to select new projects and be sure to scan the organization for new projects to put on the list.

### **Perpetuate VA**

Yes, starting a new VA program is difficult. However, to keep a program together for many years is a major task. At SAVE International's 1991 Annual Conference in Kansas City, my company Delco Chassis Division of General Motors (GM) and now part of Delphi, was awarded the "Excellence In VA/VE Award". One of the criteria for the award is that the recipient must have had a VA Program in place for at least ten years. While this program did qualify, I am sad to report that many programs in United States' companies do not. Therefore, the subject of survival is highly important for the long-term success of VA. I was honored to receive this award for my company.

We will now discuss the important elements that must be put in place to insure that a new VA program lasts and performs in an effective and efficient manner. There are six key ingredients or elements for a successful and long-term VA program. They are:

1. Positive Sell
2. Success in the Program
3. Continuous Improvement
4. Management Support
5. Networking, and
6. Reputation.

#### **POSITIVE SELL**

The first of these, *positive sell*, is the most important. No one could maintain a livelihood or business without selling or, in other words, just waiting by the telephone for a customer to call. This is why selling is so important. You can have the best of everything, but if potential customers do not know you exist, they will not call you. Even when I worked for General Motors I always considered myself a consultant to the division, with a product to sell. My employees and I considered anyone who worked at GM a potential customer for our Value Analysis Program. It was our Value Analyst's job to identify their customer wants and needs and to propose how VA can help the customers achieve their goals and solve their problems. This activity must be performed with rigor and be continuous and relentless. Excellent value analysts are always looking for new applications on which to utilize VA, and for new customers.

One additional point about selling. You may recall, I wrote positive selling. As a value analyst your selling must be positive selling. While everything is not perfect, and hornet's nests turn up, a positive attitude about Value Analysis and what it does and can do, is essential.

## **SUCCESS**

The second ingredient to perpetuate Value Analysis is *success*. If an established VA Program does not produce any early successful results, it will not survive. Creativity and innovation is not enough; it must have implementers. Implementation of meaningful projects takes an incredible amount of work. It is almost essential that your organization have a very strong cost improvement ethic. Not lip service, but a truly involved and visible cost reduction process. Without an overbearing desire to improve, improvement at least to the degree that is really possible will not occur. This ethic and VA was a natural marriage. It makes the implementation of proposals from your workshops a reality.

Success breeds success. Success should not just be measured on the ledger sheet. We know Value Analysis fosters teamwork, improved worker attitudes and improved relationships among our customers, suppliers and employees. Your hourly work force will benefit significantly from VA participation and involvement. Their initial reaction is a big thanks for being allowed to participate, with comments like "nobody has ever allowed me to be creative before". But after a while what really sinks in, is a new attitude toward their job. An awareness that they can influence and have an impact on change. This attitude change is one tremendous attribute of VA that often goes unnoticed by many members of management.

## **CONTINUOUS IMPROVEMENT**

The third ingredient is *continuous improvement*. Value analysts need to know that their workshop must be changed and updated on a regular basis. Many team members repeat as participants and it is important to continuously improve your presentation materials. While the VA job plan is fixed, how it is presented is not. We should also change your motivational and team building exercises.

Value analysts should not try to pre-judge new material before it is tried. Many new techniques are tried, and the workshop participants' reaction is noted. If the reaction is positive, leave it in. If not, try something else. While this may seem somewhat risky, it has worked out quite well for me. Even if something new bombs, you can pass it off as an experiment and thank the workshop audience for working with you.

Part of continuous improvement relates to your ability to apply VA to new areas. Through my experience I have found out that if you trust and use the VA Job Plan it always works. It may take several tries of applying the methodology to new areas, but after repeated success, you will obtain this faith, just as I have.

## **MANAGEMENT SUPPORT**

The fourth major ingredient is constant and consistent *management support*. This support can range from a minimum of allowing Value Analysis to happen, to a maximum of active

involvement and participation. When I managed the VA program at Delco Chassis in Dayton, Ohio the executive management team was close to the minimum edge of that range. The executive staff was not involved in the day-to-day operation of Value Analysis—but only on an as needed basis.

Your leadership, however, does establish a business plan—a business plan that includes your vision, mission, objectives, goals and key strategies by which you will achieve your goals. Value Analysis is one of those key strategies.

At Delco, no one was told they must use VA, no mandates, no edicts! No salaries or bonuses were dependent on its use. Perpetual use of Value Analysis is not dependent on the whims of a champion that is here today and gone tomorrow. The VA Department had been in three staff areas, had three different managers, eight different staff heads and four different General Managers. VA could not survive that much leadership change if it existed on mandates and edicts. The fact that the tool works and value analyst's do a great job of selling and reaping successful results, you will convince your management team that Value Analysis exists because it is a powerful and useful tool to achieve its goals and objectives.

## **NETWORKING**

If you must work in a vacuum, you are put in a disadvantaged situation. One reason many of you have attended this conference, is to get out of a vacuum and learn and share with each other. This is called networking. Those of you from active companies are able to network on a regular basis.

One large advantage for big companies, like GM and my fifth major ingredient to perpetuate VA, is an ability to *network* within your entire organization. Also with many active SAVE International Chapters, the opportunity to share ideas is extremely helpful. Now, with the internet making communication so easy, almost anyone can get help on VA from any place in the world.

Networking deserves much of the credit for keeping VA alive at General Motors for as long as it did. I believe it is safe to say that without the many informal, methods of staying in touch, Value Analysis would not have survived the test of time within General Motors. One should know that for reasons that will not be discussed in this paper GM no longer has a vibrant and active VA program, despite documented annual savings in excess of \$1,000,000,000. I encourage everyone to take advantage of the power of multiple minds.

## **REPUTATION**

The last secret ingredient to perpetuate VA is a solid *reputation*. Value Analysis has a solid reputation. I find this quote from George Fouch to be extremely pertinent; “Value Engineering as a technique is not on trial. The achievements to date overwhelm any question of the efficacy of the technique. What then, is on trial? Very simply – people- you and I”. Once you have mastered skills as a keen value analyst and are respected for your excellent facilitation skills and knowledge of VA, you will develop this reputation. Reputation is earned, not given. When you treat everyone as a customer, and satisfy them, repeat business and perpetuation is guaranteed. I

have heard of some value analysts who promise quick implementation, and they promise that they can handle scores of teams and substantial results. These promises are usually broken and so is the credibility of VA. Do not promise the world, and do whatever it takes to deliver what you promise. At Delco our group worked with vision. To maintain our reputation, we value analyzed our own VA department and the role of a VA practitioner. We performed function analysis and created FAST diagrams to better understand what we were doing. The resultant brainstorming and evaluation phases, helped direct us to improve what we did and how we did it. We also improved the quality to our customers, and thus improved our reputation.

Positive sell, successful implementation, continuous improvement, management support without edicts, networking and a reputation that delivers what you promise—all add up to customer satisfaction, and customer satisfaction, always wins.

### **VA Manager and Subordinates Key Job Responsibilities**

The final section of this paper will cover in detail the key roles and responsibilities of the VA Department Manager and his/her subordinates. More specifically these responsibilities apply to everyone working in the VA department.

This section is shown in an outline format with the key job elements in bold and the associated tasks that support the key element are indented. Following each key element is a brief narrative with further explanation.

#### **Key Element #1 - Programs Identified, Defined & Developed**

Suggest, document and justify topics

Define and document a plan of attack (dates, team members, target areas)

Develop widespread input: individual departments, individual employees, VA teams, brainstorming sessions, suppliers, self

Cost, volume and content data is complete, timely and accurate

Proper data sources are utilized and sufficient data collected

Critical parameters are identified

Potential team members and workload identified

Strategies discussed with management

As you may determine key element #1 focuses on the first and often overlooked element to achieve successful value analysis. Project selection is the foundation for a strong VA process. Once the project is identified, data collection then becomes the next key step. Knowing what data to collect for each type of VA project is imperative to project success. Team members cannot make assumptions if they are to make decisions on the project they are working on. We always erred on the side of collecting too much information rather than not enough.

#### **Key Element #2 – VA Teams Developed and Maintained**

Solicits and develops potential team members for desire to participate

Formulates team to represent proper disciplines

Helps select and obtain approval for team members

- Insures team members understand program and requirements
- Indoctrinate team members to VA during first meeting
- Prepare for and facilitate pre-workshop meeting
- Insure appropriate cost, functional and other relative data is provided
- Insure adequate samples and displays are provided
- Help teams develop approach and strategy
- Meeting agendas are developed and handed out prior to each team meeting
- Agenda is adhered to
- Team performance is reviewed at each meeting
- Meetings held to specified time and intervals between meetings maintained
- Team member attendance at team meetings is assured (meeting notice and personal contact)
- Insure meeting minutes are issued within four working days of next team meeting
- Team progress reports are issued to VA Manager and other appropriate management
- Team presentations of proposals to appropriate management every six months

This key element is two-fold. First is selecting the proper people to be on the team and second is to follow-up after the workshop to insure teams continue to meet and follow their action plans. It is important to keep an active list of potential team members. Employees would often stop into our department and express a desire to participate on a future team. First we would use them to help identify a viable project, but we would record their name, background and know what potential future VA project they would be best suited for. My value analysts, while not held accountable for savings goals, were held accountable to make sure that all savings identified at VA workshops got implemented. We learned very early in our program that follow-up is extremely important after the workshop, especially within the first two or three weeks. During the workshop work has a tendency to build up on people's desks and when they return after the workshop they get caught up in the routine rat race. By having regularly scheduled team meetings with the VA facilitator acting as a catalyst and recorder the implementation success rate is greatly enhanced.

### Key Element #3 - VA Programs Developed

#### VA Improvement Proposals Generated

- Purpose and rules discussed

- All proposals recoded and documented – active list of ideas and proposals maintained

#### VA Improvement Proposals Analyzed

- Preliminary feasibility determined within one month of generation

- Preliminary savings and investment identified accurately and completely

- Proposals entered into cost system in a timely fashion

- Responsibilities and timetables defined and documented

#### VA Improvement Proposals Implemented

- Lead team decision of proposal priorities

- Disposition of “under review” or “feasibility study” proposals conducted within 4 months of generation

- Proposal savings and investment data is timely and accurate

The work that goes on in this key element is accomplished with active participation with the team after the workshop. As noted above, by keeping the teams working on and driving towards project completion this key element falls into place. Please note however, one must not be passive in this role. It takes a tough diplomat to pull this off.

#### **Key Element #4 - Value Improvement Proposals Implemented**

##### **Proposal Implementation Plan is Developed**

- Steps defined accurately and completely
- Responsibilities assigned for each step and target date assigned
- Team develops and approves action plan
- Progress reviewed with team at each team meeting

##### **Proposals Expedited**

- Keep proposal status current
- Individual responsibilities and deadlines for next step identified at team meetings
- Priority items established with support groups
- Unnecessary steps identified and eliminated
- Concurrent events identified and pursued

##### **Proposals Documented and Audited**

- Savings analysis complete and accurate
- Supporting information complete and obtained from credible sources
- Proposals are implemented before reporting savings
- Cost system data is complete and accurate

##### **Objectives and Goals are Achieved**

- Savings goals achieved
- Objectives met
- Changes in objectives accurately defined and approved
- Team status and activities presented and reviewed bi-monthly
- Follow-up to insure desired results

Without proposal implementation and leadership objectives met and sustained the value analysis program will be short lived. Complete and accurate action plans are the order of the day to insure implementation. It is said that, "Failure to plan is planning to fail". A detailed action plan can avoid failure. Persistence can also lead to success. Thomas Edison stated that he did not fail 7000 times, but discovered 7000 ways that would not work. The VA facilitator after the workshop has to be a cheerleader and an obstacle remover whenever necessary. Thus links to key management must be in place to help overcome these obstacles.

#### **Key Element #5 - Develops – Monitors – Presents Statistical Data & Reports**

##### **Reports Analyzed and Distributed**

- Reports reviewed for accuracy
- Reports distributed to appropriate management in a timely fashion
- Cost system data inputted accurately and on time

Part of the follow up is reporting status and results to key and appropriate leadership. Reporting inaccurate results, just once, can lead to kill the credibility of the program. Thus care must be taken to insure the reported results are accurate and not premature.

#### **Key Element #6 – Perform Training Functions**

- Perform VA familiarization presentations for interested individuals and groups
- Make adequate preparation
- Present self and VA in a professional manner
- Answer questions and provide adequate feedback
- Listen to other point of view with an open mind
- Conduct exercises to stress points or demonstrate examples

Exposing, presenting and training new people in the organization are extremely important to keep your VA program alive and vibrant. Like any program without ongoing attention and nurturing it will die just as a plant needs its TLC. Constant and continuous nurturing will pay long-term dividends to any VA program.

#### **Key Element #7 – Embrace Other Value Methodologies**

- Perform Design for Assembly activities for all design projects
- Perform elimination of waste and synchronous activities for all process studies
- Perform commodity studies
- Maintain product display boards and work with suppliers in conjunction with Purchasing
- Follow-up on all supplier originated proposals

One must keep in mind that value analysis is only a tool. One must also keep in mind that it is not the only tool available to make improvements. I happen to believe that VA is one of the best, if not the best tool, but it can work much better when other techniques and tools are integrated into the VA job plan. I have had much success doing Design for Assembly concepts as a pre-workshop assignment for project teams. When doing any process team, either in the manufacturing arena or in the office or service organizations the integration of lean and synchronous techniques offer tremendous enhanced results.

#### **Key Element #8 – Grow VA**

- Identify and explore new opportunities to apply the VA job plan
- Prepare for and adequately plan for identified new opportunities to insure success
- Consult with other members of VA department to properly plan for new VA applications
- Report results and lessons learned on all VA activity to other VA department personnel
- Develop new methods to advertise VA across the organization
- Contribute to VA newsletter

Resting on your laurels and past successes guarantee you nothing. Always look for additional opportunities to use the VA job plan. The more you do this the more you will do it, because you will develop a faith in the system that it will work on anything, anywhere.

## Conclusion

This paper has attempted assist organizations with a manufacturing and/or service focus to begin and maintain an excellent and vibrant value analysis program. Despite the evidence that value analysis is GREAT, there are no guarantees of its longevity in any organization. Constant and consistent care and nurturing must be performed to reap continuous activity. Never take it for granted. In many governments there are laws that require value analysis to be performed, however, I will go on record that if and when results do not measure up to lawmaker's expectations the rule book can change. One must always keep their guard up. Always be on the look out for new ways to apply value analysis. Always treat your customer no matter who he or she is and how long they have been customer, just as if you are working for them the very first time. Like in any business it is easier to keep a current customer, than to bring in a new one. Thus it is of utmost importance to work hard for your current customers. Please note that my definition of customer is anyone inside or outside of your organization that is a potential VA user. Following the important points in this paper to begin and perpetuate a VA program will go a long way to insure that what you are doing today, someone will be doing many years from now.

To quote Mr. McMurry once again, "Value Engineering, when placed in its *proper perspective* and *applied* as it should be *applied*, has proven to be the most "Effective Communication System' known to modern business and industry today. It provides a common language which will serve to draw, tie and blend into a homogenous mix each of those specialized elements, activities, knowledge's and skills necessary for paralleled and logical conclusions – all with but one common objective – performing the prescribed function at the lowest overall cost."

### References:

"Starting Value Engineering/Value Analysis Programs" by W. G. McMurry; Value World, Volume 27, Number 2 Fall 2004; Originally published in 1967.

Lawrence D. Miles Value Foundation website

## Exhibit A

### EXAMPLE OF A VM POLICY GUIDE FOR YOUR COMPANY

#### Description:

Value Management (VM) is defined by corporate policy as a systematic and organized approach of relating cost to function at each stage of product and process development, from the beginning of the conceptual design phase through the manufacturing and delivery of the product or service.

VM has two components ie. Value Analysis (VA) and Value Engineering (VE). VA applies to parts, processes, equipment, systems and procedures which exist, and to where the improvements can be measured in tangible cost, time, weight, or quality. VE is directed at future designs, processes, equipment, systems and procedures where basic functions to be accomplished are defined, but are not yet implemented. Improvements are measured as avoidances.

Properly applied, the technique of VA/VE will assist in identifying, avoiding and/or removing cost and waste from products, processes and services. Company Name management encourages the use of these techniques as early in the design and development cycle as possible to bring about the maximum benefit to the project being studied.

#### Policy:

The policy of Company Name is to apply VA/VE techniques in product design, product engineering, manufacturing and all related phases of our operation. Particular emphasis, therefore, shall be stressed in planning, product development, process capability, design, manufacturing, tooling and procurement, but need not be limited to these activities.

#### Value Management Program Objectives:

1. To develop and maintain the environment, the required training, and the discipline necessary to eliminate unnecessary cost and waste.
2. To encourage teamwork among the staffs and our suppliers in the generation of creative ideas, which will reduce our costs.
3. To achieve reduction or avoidance of the costs of products analyzed by VA project teams.

In summary, the general objective is to maximize quality and minimize costs, while meeting performance and reliability criteria.