

THE VALUE OF TIME

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ABSTRACT

This paper discusses the potential impacts of time on the quality of Value Methodology (VM) Study results. Using the traditional five day, 40-hour period as a basis for comparison, the authors discuss what portion of the VM process is altered, and how the Job Plan is affected when a VM study is shortened to three days, or conducted over six, eight, ten, or twelve days. After the paper presentation, forum panel members representing client organizations will participate in interactive discussion with the audience.

INTRODUCTION

A growing trend toward abbreviated Value studies has created concern among value practitioners who don't want to lose customers, but do want to maintain the integrity of the Value Methodology. Increasingly, clients attempt to limit Value studies to three days, or sometimes even shorter activities, without regard for the scope of the study target or the integrity of the Value Methodology Job Plan. Time limitations may result in more enthusiastic participation by client personnel, because they are "losing" less time away from their normal work effort. At the same time, these time constraints require that some portion of the Job Plan is compromised.

Some VM users, recognizing the power of the Value Methodology to solve problems, create new concepts or designs, plan a strategy, or streamline a process or procedure, will require that a longer period of time be devoted to the VM team study. This may vary from six or eight days to as long as twelve days or more. The longer studies typically require a split schedule and, depending upon the study target, may necessitate a variation in the time allotted to specific VM Job Plan activities.

For many years there has been a widely perceived notion that a VM study should be five days, or 40 hours, long. In fact, the duration of a VM study should be based on a number of different factors, most notably the subject of the study, the expectations of the customer, and the complexities associated therewith. For purposes of this discussion, the five-day study is used as a baseline.

The Value Methodology Job Plan is often construed to apply only to the formal phases included in the team study: Information, Function, Creative, Evaluation, Development, and Presentation. Pre-study and post-study activities, while not necessarily considered formal steps of the VM Job Plan, are integral to the success of any VM effort, and are addressed as such in this discussion.

For a typical five-day VM study, the baseline includes time allotments as shown in Figure 1.

VM Study Time (40 Hour Model)				
Phase	Number of Hours			
STUDY TYPE:	CONSTRUCTION	PRODUCT	PROCESS	PROCEDURE
Pre-Study	8-24	8-16	20-30	40-60
Information	4-6	2	2	2
Function	4	8-16	8	6
Creative	4	6	4	4
Evaluation	6-8	16-20	12	8
Development	16	4-8	12	8
Presentation	4	4	4	4
Complete Dev	8	60	40	20
Document	40	20	16	20
Typical VM Workshop Environment				

Figure 1

VM STUDY ACTIVITIES

Regardless of the study type, the study target, or the length of the VM study, certain pre-study activities must always occur. In addition to project identification, definition of the VM study schedule, and team selection, extensive preparation work is required in the form of data collection, cost analysis and models, team information packages, and logistics arrangements.

Once the team study is concluded, additional documentation may be required to complete or further refine the developed VM alternatives. A complete report is prepared to document the study and results, and implementation actions must occur.

Figure 2 on the following page illustrates all the activities typically included before, during, and after a VM study. None of these actions is eliminated by reducing the length of a team study; all must occur for every VM study, regardless of how long the team sessions last.

THE CHALLENGE

Using a construction project as an example, assume the client has requested a three-day VM team study. The compressed time is required to maintain

the design schedule, the budget is limited, and the key team members are unable to commit more than three days of time away from their regular responsibilities.

Can a "real" VM study be effected with a three-day team effort? Will the VM Job Plan be so severely compromised that successful results are impossible? Will this entire activity be mere cost cutting, as opposed to application of the Value Methodology? Some value practitioners believe the answers to these questions are No, Yes, and Yes, respectively. Figure 3 below shows how the hours per phase would differ for a three-day study compared to the 40-Hour Model previously illustrated.

VM Study Time – Construction Project (3-Day Study)		
Phase	Number of Hours	Effect of Reduced Time
Pre-Study	24-32	More up-front required by facilitator/team leader
Information	4	Site visit eliminated
Function	2-3	Less team interaction; more team leader "executive decision". Reduced cost/function analysis
Creative	2-3	Fewer ideas; potential loss of "significant" ideas
Evaluation	4	Reduced depth of team discussion and analysis of ideas
Development	8-10	Less detail; potentially less credibility
Presentation	2	Fewer alternatives to present
Complete Dev	16	More refinement and "filling in the blanks" required to compile report.
Document	48	
Typical VM Workshop Environment		

Figure 3

There are both pros and cons associated with the abbreviated study approach. While it reduces the client's cost for the study, the VA team and facilitator are put under tremendous pressure to accomplish a lot in a short period of time. In order to maintain the integrity of the Job Plan and, at the same time, prevent the activity from being simply a cost reduction exercise, the facilitator's job of keeping the team focused and on track becomes even more

critical than usual. Every phase of the Job Plan is impacted in some way, as listed above. And note that pre-study and post-study time needs to be *increased* as a result of the compressed team study schedule.

However, this scenario represents a double-edged sword, because impressive results only encourage more use of the abbreviated team study approach.

Value Methodology Activity Chart

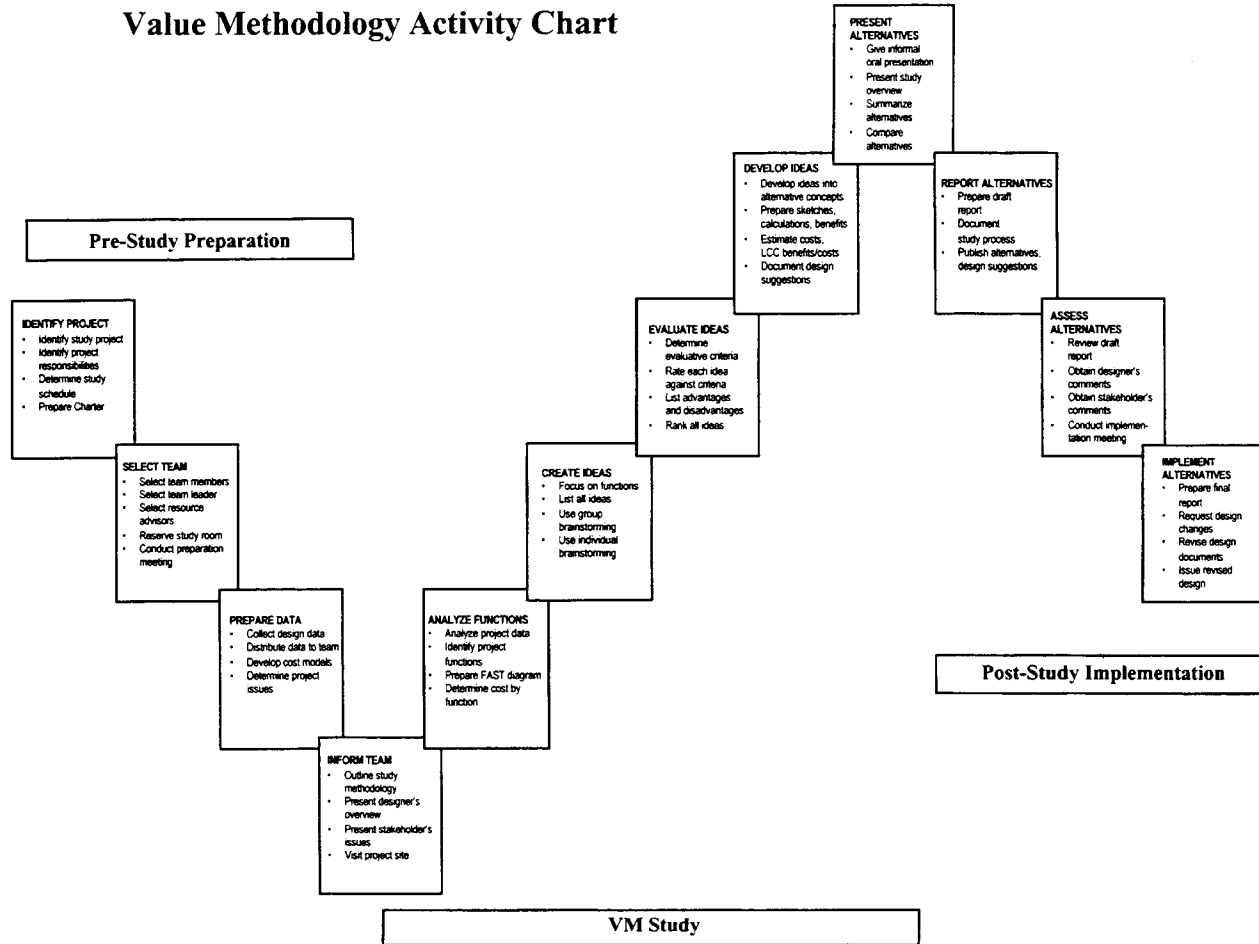


Figure 2

Results of a three-day VM study may be limited to mere validation of a project's functional concepts, rather than significant project improvements. Alternatives that are developed are likely to be more conceptual, and less detailed, than VA Alternatives produced in a longer study and, as a result, may prove more difficult to implement.

Most importantly, the results may not be optimized due to the limited time the VM team has had to exploit the techniques of the Value Methodology and gain the benefits of team communications and project understanding the techniques offer.

It is possible to have impressive results, which dramatically demonstrate the power of the VM process, even when constrained by a three-day study.

Note that a successful VM study in a three-day period is *highly dependent* upon an experienced VM team.

THE PREFERRED APPROACH

There are many reasons why a value study might require more than the typical five days. A high profile, controversial project, or multiple funding entities may create specific issues that require more attention by the VM team. The project may be over budget, or have other problems associated with its completion. Or it may be a very complex project, which requires a larger team, and has more elements on which to focus.

So what is to be gained by having more time in which to do a VM Team Study? First and foremost, the VM team is more intimately involved in the pre-

study planning, resulting in more and better information gathering. Of equal import, the team may meet with project stakeholders and decision-makers at the mid-point of the study to validate the direction the team is taking with their VA Alternative development. And when complex problems are considered, multiple FAST diagrams may be developed.

Obviously a study spanning more than five days requires a split schedule of some sort. There is a significant advantage to having a break of several days between team sessions, as it offers the opportunity for team members to do research and gather additional information needed for development of VA Alternatives. Too much time between team meetings should be avoided, to reduce the potential for loss of the team's momentum.

Assuming an eight-day VM Team Study, the breakdown of time spent on each phase of the Job Plan might be as shown in Figure 4 below.

VM Study Time – Construction Project (8-Day Study)		
Phase	Number of Hours	Effect of Added Time
Pre-Study	32	Includes pre-study team meeting
Information	8	Enhanced site visit and discussions with stakeholders
Function	8	Possibility for multiple FAST diagrams
Creative	4	
Evaluation	12-16	Thorough team evaluation of alternatives. Includes mid-point presentation to decision-makers and stakeholders.
Development	24-28	More credible, well-developed documentation. Team review of all alternatives
Presentation	4	More solid alternatives to present
Complete Dev	16	
Document	56	
Typical VM Workshop Environment		

Figure 4

Disadvantages to the longer study are primarily those associated with time commitments from team members and, depending upon the team

configuration, the cost of the study. It is sometimes more difficult to convince management that a longer period of time is needed. And as mentioned earlier, too long a break between sessions could negatively affect the team's momentum.

COST IMPLICATIONS

Value is defined as “a fair return or equivalent in goods, services, or money for something exchanged.”¹ For purposes of discussion, we assume the number of team members is slightly different for each of the three VM team studies described, and assume an average cost for personnel without regard for geographical location or specialized expertise.

On these bases, the costs might look similar to those shown in Figure 5.

Approximate Costs of VM Studies

	Rate/Hr.	3-Day Study		5-Day Study		8-Day Study	
		Hrs	Cost	Hrs	Cost	Hrs	Cost
CVS Facilitator	\$150	104	\$15,600	112	\$16,800	152	\$22,800
Team Member 1	\$130	28	\$3,640	48	\$6,240	76	\$9,880
Team Member 2	\$130	28	\$3,640	48	\$6,240	76	\$9,880
Team Member 3	\$130	28	\$3,640	48	\$6,240	76	\$9,880
Team Member 4	\$130	28	\$3,640	48	\$6,240	76	\$9,880
Team Member 5	\$130	28	\$3,640	48	\$6,240	76	\$9,880
Team Member 6	\$130			48	\$6,240	76	\$9,880
Team Member 7	\$130					76	\$9,880
Totals		244	\$33,800	400	\$54,240	684	\$91,960

Figure 5

If the VM effort results in only \$100,000 of implemented savings, the cost of the study has been more than covered. The question becomes one of priorities, and whether an organization is willing to invest not only the dollars, but also the time, required to apply the Value Methodology successfully.

CONCLUSION

The true issue is not whether a Value Methodology Study is conducted over three days, or three months. The key is maintaining the integrity of the VM Job Plan, and making the necessary adjustments in time allotted for all elements of the process, to maximize the results generated. The key is achieving that “fair return” for something exchanged – in this case, time.

¹ Merriam-Webster's Collegiate Dictionary, 10th Edition, 1993