

Part 14

No. 1



C.O.S.T ENGINEERING™

„Design and Marketing of Rockets“

Lecture Series given by Dr.-Ing. Robert Alexander Goehlich



- Part 14: Special 3: Improve Program Planning for
Space Industry or Organization -

Content

No. 2



- **General**
- **Program Planning**
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 - Program Evaluation Methods
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 - Pitfalls
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 - Cost Engineering Practice
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General Contact

No. 3



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General Goal of Today's Lecture

No. 4



„You will learn about how to improve program planning by various class exercises.“

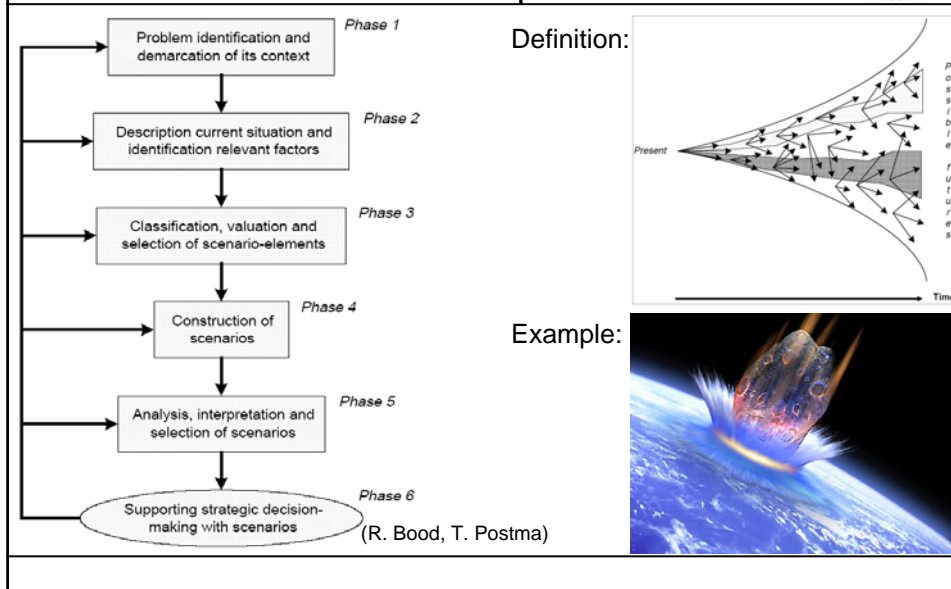
What is Program Planning?

There are a wide variety of uses of the term "program" in organizations. In its most general use, a program is a collection of organizational resources that is geared to accomplish a certain major goal or set of goals. For-profits often use the term for very large business efforts that have limited duration and a defined set of deliverables. Program planning is usually but not always of a broader scope than project planning. (C. McNamara)

Scenario Technique

Process of Scenario Development

No. 5



Program Evaluation Methods

Methods to Collect Information

No. 6



Method	Overall Purpose	Advantages	Challenges
Surveys, checklists	when need to quickly and easily get lots of information from people in a non threatening way	-can complete anonymously -inexpensive to administer -easy to compare and analyze -can get lots of data -many sample questionnaires already exist	-might not get careful feedback -wording can bias client's responses -are impersonal -in surveys, may need sampling expert -doesn't get full story
Interviews	when want to fully understand someone's impressions or experiences, or learn more about their answers to questionnaires	-get full range and depth of information -develops relationship with client -can be flexible with client	-can take much time -can be hard to analyze and compare -can be costly -interviewer can bias client's responses
Documentation review	when want impression of how program operates without interrupting the program	-get comprehensive and historical information -doesn't interrupt program or client's routine in program -information already exists -few biases about information	-often takes much time -info may be incomplete -need to be quite clear about what looking for -not flexible means to get data; data restricted to what already exists
Observation	to gather accurate information about how a program actually operates, particularly about processes	-view operations of a program as they are actually occurring -can adapt to events as they occur	-can be complex to categorize observations -can influence behaviors of program participants -can be expensive
Focus groups	explore a topic in depth through group discussion, e.g., about reactions to an experience or suggestion; useful in evaluation and marketing	-quickly and reliably get common impressions -can be efficient way to get much range and depth of information in short time -can convey key information about programs	-can be hard to analyze responses -need good facilitator for safety and closure -difficult to schedule 6-8 people together
Case studies	to fully understand or depict client's experiences in a program, and conduct comprehensive examination through cross comparison of cases	-fully depicts client's experience in program input, process and results -powerful means to portray program to outsiders	-usually quite time consuming to collect, organize and describe -represents depth of information, rather than breadth

(C. McNamara)

Example: ?

Analyzing Information

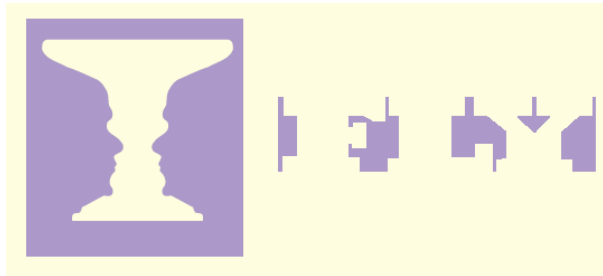
No. 7



Because objects are not looked at in isolation, objects that are close to each other will tend to be perceived together rather than separately. As a result of physical or time proximity, we often put together objects or events that are unrelated. For instance, a new sales manager is assigned to a territory and soon after sales in that area increase. But reason of increase may be due to the introduction of a new product line. (S. Robbins)

Example:

What we see is dependent on how we separate a figure from its general background.



Pitfalls

No. 8



1. Don't balk at evaluation because it seems far too "scientific." Usually the first 20% of effort will generate the first 80% of the plan, and this is far better than nothing.

2. There is no "perfect" evaluation design. It's far more important to do something, than to wait until every last detail has been tested.

3. Don't investigate just in the successes. You'll learn a great deal about the program by understanding its failures, dropouts, etc.

4. If disaster planning is necessary try as soon as possible to get back to healthy planning.

Our Disaster Recovery Plan Goes Something Like This...



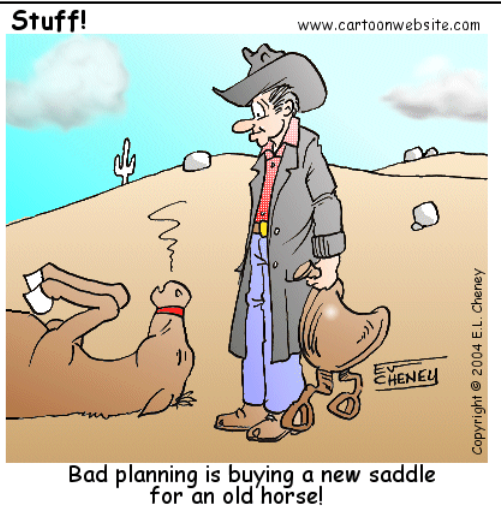
Example: ?

Alternative Approaches

No. 9



What is your idea?



Working with Others

No. 10



Learning by doing...



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