

Analysis Techniques For Management Skills

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A primary overview of purpose, procedures and products for the manager of management training and development and for managers who wish to take responsibility for improving the cost-effectiveness of upgrading their own skills. References to other publications and processes are noted for those who wish to pursue in-depth study and practice of these techniques.

"Good managers have inherent skills; you can't train for that type of talent."
"He's a born leader."
"She's just naturally adept at managing."
"The only way to learn about good management is by experience."

These are familiar quotes to anyone who has ever engaged in a discussion of how to acquire or develop successful managers. These statements are tantamount to saying that what managers do is indescribable. Over the past two decades we have learned a great deal about the systematic analysis, design, development, and implementation of skill training for craft workers. With all the success we have achieved and observed, is it not amazing that we still expect managers to become skillful at the craft of managing by experience? Or should we say trial and error? If we know how to do it better, why are we not doing so? Perhaps it is due to the classic gap between knowledge and skill.

Managers of management training and development are often on a rotational assignment to that position. They know how to manage activities and people in the operating environment. Very often they even know what they would like as an outcome of their efforts in the management training job. They may not have had any experience with current learning technology or research and development methods. Frequently we hear trainers saying, "Top management in my organization just won't support that kind of investment for a thorough needs as-

essment." Or, "The operating managers want some training right now. We can't take the time for analysis."

For the management decision makers to support appropriate needs assessment and front-end analysis they must clearly see why it is essential and what the payoff will be. They are not likely to want to spend weeks or even days in workshops and seminars to gain that awareness. Faced with that challenge, I have often been asked to give a quick overview of how the systems approach can be applied to management skills. Not enough people are writing about what they are doing in the field of management development to fill this need.

This article is an attempt to provide that overview of the purpose, procedures, and products of basic analysis techniques. It is intended for the managers who are not learning technologists, yet must decide whether the required resources can be committed to a development project. It may also be a useful guideline to those who are considering the use of external workshops and seminars for management training.

First, the Foundation

It is generally recognized that a complete system for analyzing the requirements for performance in an operational environment includes:

1. Articulating the organization's key objective or mission.
2. Determining what major goals have been set.
3. Identifying the functions required to achieve those goals.
4. Determining performance requirements through analysis of goals, jobs, and tasks.
5. Deriving skill requirements from the outputs of 4.
6. Identifying extant skills through analysis of the target population and current actual performance.
7. Deriving skill deficiencies through detailed comparison of the outputs of 6 to the skill requirements, 5.

"Margo Murray's highly successful method of analyzing management skills is stylistically attractive and substantively important."

Thomas Schwen, Indiana University, Editor, Issue on Interpersonal skill and discipline in the Practice of Instructional Development, **PERFORMANCE AND INSTRUCTION**, May 1981

There are some effective and efficient training development models that tell us how to determine learning and performance change requirements relative to performance discrepancies and performance problem symptoms. (Harless, 1972; Mager & Pipe, 1976; 1979; & others). For detailed study and practice I recommend participation in one of those workshops.

Costs—A Stumbling Block or a Cornerstone

In the case of management skills very few organizations are applying available expertise to deciding what to instruct, or more importantly, why instruction should be considered at all.

Some say that thorough front-end analysis is much too costly, but unnecessary or redundant training is a much more costly waste of critical resources. A glance through any stack of brochures and catalogs describing management training programs, seminars, and workshops reveals registration costs of \$395 to \$625 for two-to four-day programs. And that is just the visible tip on the iceberg. Travel, hotel, and meals can tap the company coffers another \$400 to \$1000 for a four-day program even if that training is nearby. Another hidden cost of training for managers is the cost of the manager's replacement and the domino effect the manager's absence will have within that organizational element. Although managers may not be directly replaced on the job while away for training, one must acknowledge that salary, loaded for fringes and overhead, adds a considerable investment in this training. You can compute that for yourself, the real question is, "Is it worth it?"

First let us get rid of the stumbling blocks, those misconceptions that "managers are born not trained," or equally prevalent that "management is an art," and not amenable to precise analysis. Perhaps the obvious is escaping the attention of many management develop-

ment practitioners. Management skills are describable and can be learned. Some generic management skills are essential to successful performance of most managers, for example, planning work, appraising performance of others, etc. Some skill requirements are unique to a task or function, for example, interpreting a computer print-out of expense data. If a skill is required and is not there, you have a costly gap in performance and efficiency. If a skill is already there, more training is a costly facade. Training that is necessary to build required skills is an investment cornerstone.

Now that we have reviewed some considerations for managerial training, let us look at how you can systematically assess those training needs. Do not be misled by the brevity of the narrative description of the process. It will take some practice to acquire the skills to perform the following steps. More significantly, the actual analysis requires a considerable investment of time and effort. The payoff comes after the process has been carefully applied, from the assurance of a valid training program matched to the managers' needs, and the avoidance of unnecessary training.

Target Population Analysis—Who are the Performers?

All too often the design of a management training program begins by selecting a subject. For example, "We need some courses on Zero-Based Budgeting, Affirmative Action, or Stress Management." The next step is usually to decide on the processes to be employed, for example, case studies, role playing, group discussion, etc. The design of management training is rarely based on an analysis of the kinds of people who will participate in the training program. The excuses are, "they are all different," "the range of experience is too great," and "they come from a variety of places" (geographically, philosophically, or both.). Some management trainers profess to know their students better than they know themselves. Others are reluctant to document useful descriptions of their potential students but may use job/position titles in their promotional brochures to announce who the course is for (Murray-J Hicks, 1977).

TPA—Purpose

Precisely because the prospective learners are so "different," the documentation of their major characteristics

becomes more critical (Cram, 1979). The designers/developers can better pattern the course to fit the needs of the participants if they have a clear illustration of the managers' profiles. A modular design would provide the flexibility to accommodate those differences efficiently. Even if one must make assumptions about an intended learner, writing down those assumptions and validating them when there is more contact with the target population increases the likelihood that the course will consider the students as they really are rather than as the designer/instructor wishes them to be. The target population description will be used in design of format and content and to select appropriate media. It also provides a basis for evaluation of the impact of training on job performance.

TPA—Procedures

1. Draft a set of questions. What would you like to know about the learners' needs, interests, likes, dislikes, prior experience, etc.
2. Write down what you already know about them—particularly what skills they already have.
3. Interview representative members of the group.
4. Interview bosses whenever practical.
5. Use survey questionnaires if time or funds for interviewing are not available. Be aware that accurate comprehensive information may not be volunteered in this way.
6. Document everything you can find out and keep adding to it as you discover more about the learners during the analysis, development, and trials. Categorize the information in any way you find useful.

TPA—Product

The product of a Target Population analysis is a document describing the characteristics of the learners in sufficient detail for you to determine their needs for further training. This document grows and is amended as the population changes. It is one of the basic design and evaluation tools.

Goal Analysis

The common excuse for not doing a thorough analysis of management skills needs is that you can not see a manager doing important tasks such as decision-making, problem-solving, or maintaining motivation of workers. Most would agree that these are critical elements of the manager's job.

GA—Purpose

Very often we find great disagreement as to what constitutes satisfactory performance on the key elements of a manager's job. We need a process other than task analysis for analyzing these elements, and happily, there is a means for filling this need. The process of goal analysis is a most useful tool for this task (Mager, 1972; Pipe, 1975).

GA—Procedure

A task force made up of members of the target population and/or their bosses is particularly useful when there is a performance goal worth achieving that cannot immediately be stated in observable, measurable terms. If you desire input from each person and want to avoid the stifling of some contributors by a dominant and/or higher ranking member, structure the session as a nominal group process (Delbecq, 1975). Briefly, the nominal group process is structured so that each person writes down three or four ideas or items individually. The ideas are then posted in a round-robin sequence. If one person's idea is already posted, a second tally is marked by that idea and that person goes on to the next new idea on the list. The round-robin posting continues until all ideas are posted or tallied. Some weighing of the items occurs with the tallying procedure. You might also use the brainstorming approach for initial jobs/goals lists.

1. List on an easel pad all the important tasks for the management job that is being analyzed.
2. Select those that are clearly observable tasks and list on a separate pad for task analysis.
3. Select each important remaining goal and perform a goal analysis on it (Mager, 1972).
4. Write the goal statement, e.g., Maintains high motivation among subordinates.
5. List all the actions and behaviors desired as evidence that the goal is being achieved, e.g., Negotiates agreement on performance plans with subordinates.
6. Review the list to select those behaviors that are clearly observable. Continue the analysis with those that are still vague or "fuzzy." Combine related performance statements. Delete duplicate statements.
7. Draft a complete objective statement for each major performance item.
8. Test the list of statements with the question, "If managers did these

things would I agree they fully achieved the goal?" If the answer is yes you have a useful list of performance objectives. If your answer is NO, continue with step 2.

GA—Product

The product of a Goal Analysis is a set of draft objective statements describing desired performance. These statements may be developed into complete objectives by adding the conditions and criteria for performance. If they describe a major objective, derive subordinate objectives from it and organize them into a hierarchy. This procedure is outlined in a later section, Skills Analysis.

Task Analysis

Task analysis is a set of procedures designed to help identify all the important elements of a task. A task is a series of actions (also known as steps, elements, sub-tasks, etc.) leading to one meaningful outcome.

TA—Purpose

Listing the elements or steps of a task in a sequence flow provides for examination of the efficiency of the task layout. Job loading is also facilitated with task analysis. Further, task analysis provides step-by-step detail necessary to deriving the skills required to perform the task. (Murray 1978)

Again, many people seem reluctant to adequately document the detail of the various tasks performed by managers. Many of the manager's tasks are fairly stable over a long period of time, e.g., preparing budget estimates, appraisal of subordinate performance, writing objectives and action plans. Thus, there is a high payoff for documenting the detail of those tasks in a list of steps, or better yet, in flow chart format. Such a document makes a very useful job aid, and perhaps a "decision tree" for the new manager.

TA—Procedures

1. Review all task descriptions on manuals associated with the task.
2. Interview the task performer with questions like, "What starts the task?" "What do you do next?" "How do you know you're finished?" (Cram, 1980).
3. Interview the performer's boss to get input on the critical steps of the task.
4. Draft a sequential list of steps from one or both of the above, observe the actual task performance

to verify sequence and completeness. Memories are sometimes faulty, and short-cuts are frequently taken so the validation by actual observation is essential.

5. Perform the task yourself and write down the steps.
6. Convene a group of subject matter experts to produce a list of task steps. Disagreements on procedures will frequently emerge from this process. If the group has the authority to make changes, the

refined analysis can improve standardization and quality. Brainstorming or nominal group process (Delbecq, 1975) can be used to produce the initial list.

TA—Products

1. A detailed list of all the steps in the task.
2. Stimulus/Response charts.
3. Flow Chart (Figure 1.) depicting sequence relationship of all steps.

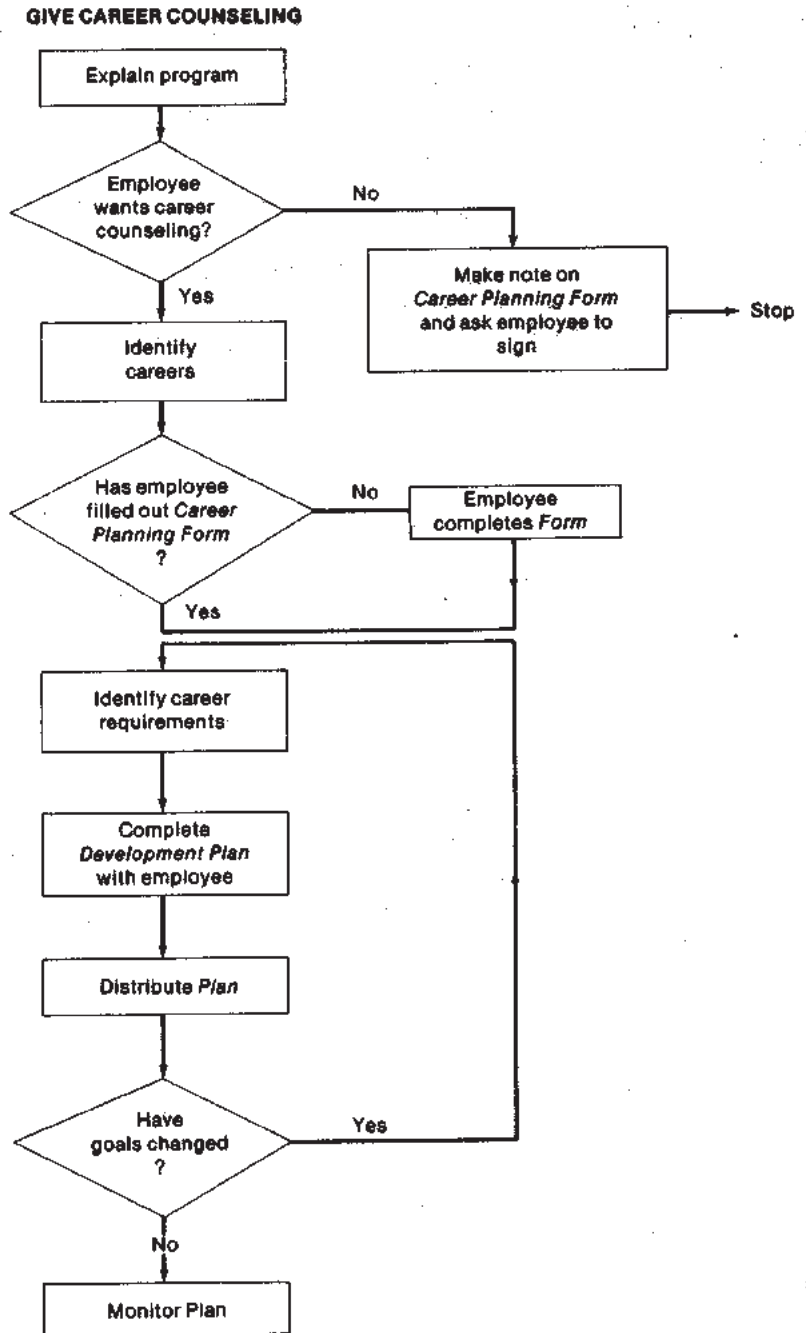


Figure 1. Task Analysis Flow Chart

4. Additional valuable information can be documented on any of these three products, such as frequency of occurrence, type of performance, level of difficulty (Mager and Beach, 1967), policy references, etc.

Performance Analysis— Purpose

This analysis tool is used when the performance requirements with standards are well documented, yet the actual performance is below the desired level. A thorough performance analysis is used to determine causes of and potential solutions for performance discrepancies (Mager & Pipe, 1970). Gathering data on the standards and actual performance can take a substantial amount of time. The payoff in improved productivity can justify this investment. Likewise the avoidance of costly training when there is no skill deficiency can make this analysis a wise investment. Any identified skill deficiencies can be viewed as training needs.

PA—Procedure

Note: For a detailed step-by-step analysis, I recommend Mager and Pipe's "Analyzing Performance Problems" and their Performance Analysis Flowchart and Worksheet. Only a brief summary of those procedures will be listed here.

1. Establish what the desired performances are.
2. Determine what the actual performance is.
3. Compute the value of the identified discrepancy.
4. Determine the cause(s) of the problem.
5. Identify alternative solutions.
6. Assess the relative penalties and payoffs for each alternative.
7. Select the potential solution with the highest payoff for the least cost.
8. Create an action plan for the solution.

PA Products

1. A review of performance standards, management environment, and feedback systems

2. Value analysis of the costs of the problem
3. Documented training needs for real skill deficiencies
4. Action plans for training and non-training solutions

Skills Analysis

With a solid foundation of analysis completed the analyst is ready for the building blocks of skills. The required skills can be derived from each of the analysis approaches described.

SA—Procedures

Deriving skills from goal analysis is not easy, but it can be done (Pipe, 1975). The task force approach can expedite the process of charting and getting consensus on the subskills. Simply stated, start with the major objectives as the top of the hierarchy, then determine each important sub-skill and arrange those subskills in the hierarchy in their appropriate subordinate relationships (Figure 2). Working on a chalkboard makes it easy to rearrange, add, and delete as the managers discuss and reach agreement.

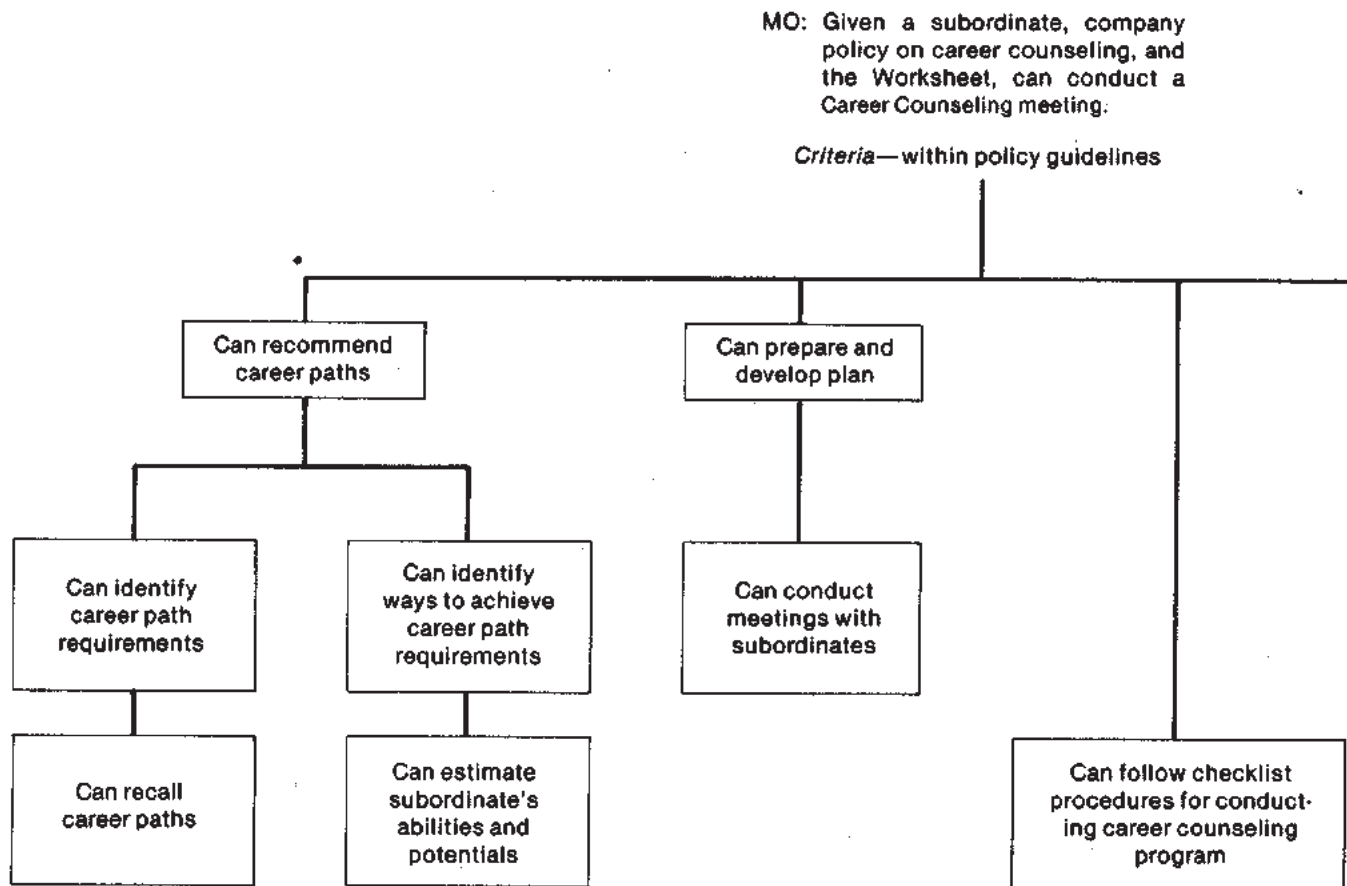


Figure 2. Skills Hierarchy

From the task analysis it is a bit easier to identify required skills. Examine each step in the task and list the skills required to perform that step. A common pitfall here is to list additional steps rather than the specific skill. Once the list is complete, duplicates can be eliminated and related skills grouped into hierarchies.

The derivation of skills from the performance analysis is probably easiest. As the analysis progresses, the discrepancies are actually being stated in terms of skill or other deficiencies. If this analysis reveals deficiencies in major skills, the subskills can be derived from those and a hierarchy created. This will facilitate matching the needs to existing training programs to find relevant and adequate skill development materials.

The graphic skill hierarchies are related to the target population description. Each can be used to expand the other. A careful assessment of the subskills may remind you of skills already existing in the target population. Likewise, looking at the target population description may alert you to the need to add lower level subordinate skills to the hierarchy.

Summary

With these documents you have the tools to determine true training needs for

your managers. You are also better equipped to question the promoters of public seminars and managers as to the fit of their program to the profile of your managers and yourself. The investment in this analysis and documentation will be recovered many times over in the focus of training on building necessary skills and avoidance of redundant training. The return on that investment will be measurable and directly tracable to the process used.

There are other more exotic techniques for needs analysis, of course. When we get really good at using these basic ones, we can begin to explore the use of those for analyzing the more elusive performance areas.

If the analysis of all your managers' jobs using this approach seems like an overwhelmingly formidable task, remember, the journey of a thousand days starts with one small step.

References

- Cram, David D. Flowcharting primer. *Training and Development Journal*, 1980, 34 (7) p. 64.
- Cram, David D. Professor T-Pop. *NSPI Journal*, 1979, 18 (6), p. 38.
- Delbecq, Andre L.; Van de Ven, Andrew H.; & Gustafson, David H. *Group techniques for program planning: A Guide to nominal group and delphi processes*. Scott, Foresman and Company, 1975.

- Harless, J. *An Ounce of Analysis*. McLean, VA: Harless Performance Guild, 1972.
- Hicks, M. "A behavioral description of mastery performance of professional career managers and of graduate students entering the school of management." Unpublished Master's Thesis. John F. Kennedy University, June, 1977.
- Kaufman, R. Needs assessment: Internal and external. Florida: Florida State University, Instructional Systems Development Center, 1977.
- Mager, R.F., & Pipe, P. *Analyzing performance problems*. Belmont, CA: Fearon, 1970.
- Mager, R.F.; & Pipe, P. *Criterion referenced instruction*. Los Altos Hills, CA: Mager Associates, Inc., 1978.
- Mager, R.F., & K. Beach. *Developing vocational instruction*. Belmont, CA: Fearon, 1972.
- Mager, R.F., *Goal Analysis*. Belmont, CA: Fearon, 1972.
- Murray, M. "It's what's up front that . . . assures performance. Published in *Proceedings of society for applied learning technology*, February, 1978.
- Pipe, P., *Objectives-Tool for change*. Belmont, CA: Fearon, 1975.

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