

Andrew Grove 1

Optimizing management



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Andy Grove sees his work as part of a production process. He does not measure his output by hours worked, or any other gauge of personal activity, but by the output of those he manages. Learn to use indicators to monitor progress and ensure that your “leverage” enhances everyone’s output.

UNDERSTANDING THE PRODUCTION PROCESS

Grove derives general production principles from his early experience as a waiter, when he was working his way through college. He had to deliver to the table boiled egg, buttered toast, and coffee “simultaneously, each of them fresh and hot”. This routine exemplifies the PAT formula of Process, Assembly, and Test.

THE PAT FORMULA

Process

any activity that physically changes material

Assembly

components are put together to create a new entity

Test

components or the total are examined and evaluated

In Grove’s breakfast task, the Process includes boiling a three-minute egg and making the coffee, the Assembly is setting out the tray, and the Test could be checking on the browning of the toast.

The PAT formula applies to all kinds of productive work, such as training a sales force, developing a “compiler” for a computer, recruiting a graduate — or managing anything. Analyze your own work. How does the PAT formula apply?

MAKING THE PRODUCTION PROCESS FLOW

All production processes have what Grove calls a limiting step — the “longest (or most difficult, or most sensitive, or most expensive) step”. You construct your production flow by starting with the limiting step and building around it. In the case of Grove’s breakfast, the limiting step is the three-minute egg. Grove works back from the time taken to boil the egg and staggers the other steps to ensure that every stage is completed in good time. Identify your own limiting step and organize the flow of work around that priority.

FOCUSSING ON THE PRODUCTION ESSENTIALS

There are five essential parts to every production process. Make these the basis of your approach to your own output, which is ultimately judged by its contribution to the output of others.

THE FIVE ESSENTIALS OF PRODUCTION

- Build and deliver products...
- in response to customer demands...
- at a scheduled delivery time...
- at an acceptable quality level...
- at the lowest possible cost.

Relate the five essentials to your own activities. Ask yourself:

- What are my “products”?
- Who are my customers and what do they want?
- What deadlines must I meet?
- How do I measure quality and what quality is acceptable?
- What does my “production” cost and how can that cost be cut?

Your effectiveness as a manager depends on knowing the answers to these questions and on using the information to raise performance.

USING YOUR TIME WELL

Time is your only finite resource. How well you use it is crucial. How do you divide your time between the three activities seen by Grove as the key functions of a manager?

THE THREE ACTIVITIES OF A MANAGER

- 1 Gathering information and giving it out
- 2 “Nudging” people to do what is required
- 3 Making decisions on what has to be done

Write down everything you do in a day under each heading. Are all your activities having a positive impact on the Five Essentials?

1. Managing by measurement

*What you measure in management is what you get.
To run any operation really well you need good indicators
or measurements, with each one focussed on a specific
operational goal.*

USING INDICATORS FOR FORECASTING

Envisage the production process as a “black box” that you can look inside. “Leading indicators” provide ways of measuring the process inside the box to see if problems are arising.

- The linearity indicator allows you to draw, say, a month-by-month straight-line progress from the start of college recruitment to the hiring target. You plot actual progress against the straight line. There is a gap, act to close it.
- A “trend indicator” measures output against time (performance this month versus performance over a series of previous months), “and also against some standard or expected level”. This forces you to extrapolate your information into the future.

A form of trend indicator that Grove has found effective in “getting a feel for future business trends” is the stagger chart. You forecast output over several months ahead and update the forecasts monthly. The chart presents your latest forecast alongside several earlier forecasts. It thus not only tests events against forecasts but also tests the quality of the forecasts themselves.

OPTIMIZING PERFORMANCE

You also need indicators to help determine the most cost-effective way of deploying resources — of getting the most output from the least input. Grove suggests using live critical indicators here.

FIVE CRITICAL INDICATORS

- 1 The sales forecast for the day.
- 2 The inventory of material.
- 3 The condition of the equipment.
- 4 The manpower availability.
- 5 The quality of output.

Take care: indicators tend to make you watch only what they monitor. Concentrating on one indicator at the expense of others can have bad results. For example, focussing on inventory levels might lead to cutting stocks to save money, without anybody realizing that this will create shortages and thus hamper production. Guard against such risks by pairing indicators, so that you simultaneously measure both effect and counter-effect — in this instance, monitoring both inventory levels and the incidence of shortages.

MEASURING OUTPUT

Another mistake is to measure activity rather than output. Do not measure a salesman by his calls, but by his orders and his hit rate. What you measure, moreover, should be physical and countable. Always pair a quantity or output indicator with one that stresses the quality of the work performed. These rules can be applied to administrative functions as well as production.

OUTPUT INDICATORS FOR OFFICE WORK	
Administrative function	Work output indicator
1. Accounts payable	1. Vouchers processed
2. Custodial	2. Square metres cleaned
3. Customer Service	3. Sales orders entered
4. Data entry	4. Transactions processed
5. Employment	5. People hired (by type of hire)
6. Inventory control	6. Items managed in inventory

Remember that each of these output indicators needs to be paired with another indicator that stresses the quality of work as well as measuring the area of office cleaned, for example, you need to measure how well it has been cleaned.

Draw up a similar list of output indicators for any functions for which you are responsible, and see if you can think of a quality indicator with which each one might be paired.

2. Applying Leverage

The manager's output is that of his subordinates and the unit. You can raise that output by how you use and impart information, get decisions made, and "nudge" people in the right direction.

GATHERING THE INFORMATION

Information is the key to Andy Grove's management leverage. He gathers it from standard reports and memos, talking to people inside the company, talking to people outside the company (other managers, financial analysts, the media), and listening to customers. Grove's most valued way of getting information ("much neglected by most managers") is the walk-about. Make a visit and talk to people as you walk. What takes two minutes on the factory or office floor would take at least half an hour in somebody's office. Do not feel awkward about making visits without any specific agenda. Your objective is to learn — which by definition means that you cannot know what you will discover in advance; ad hoc communications are Grove's most useful sources of information because they tend to be both quick and timely. Written secondary, but still important, for four reasons:

- They provide an archive of data.
- They help to validate ad hoc communications.
- They catch things that you might have missed.
- They force thinking discipline on the writer.

Grove says: "Writing the report is important; reading it often is not." He applies this view even to documents requesting authority to spend capital, when "people go through a lot of soul-searching analysis and juggling, and it is this mental exercise that is valuable".

LEARNING AT FIRST-HAND

Intel managers are asked to conduct "Mr Clean" inspections in parts of the company they would not normally visit: the aim is simply to learn.

During the visit the managers check out the housekeeping, the way everything is laid out, the labs (if any), the safety equipment. The browsing around takes an hour and acquaints them first-hand with processes and people about which they would otherwise know little.

MAKING THE DECISIONS

You need the best information you can obtain to make decisions — or to participate in them, which, says Grove, happens much more of the time. That applies to both kinds of decision: forward-looking (such as capital authorizations), or response to difficulties and crises (either people problems or technical ones). In order to make a correct decision that will result in a firm, clear directive you must know the answers to six important questions.

ACHIEVE A CLEAR DIRECTIVE

- What decision needs to be made?
- When does it have to be made?
- Who will decide?
- Who needs to be consulted before making the decision?
- Who will ratify or veto the decision?
- Who will need to be informed of the decision?

NUDGING TOWARDS ACTION

Giving information to subordinates and colleagues is equally important — especially in the form that Grove calls “nudging”. You may nudge by phone call, note or memo, or making comments in meetings. “You may be advocating a preferred course of action”, says Grove, “but you are not issuing an instruction or command.” He reckons that “nudges” — pushing people where you want them to go — outnumber unambiguous decisions a dozen-to-one.

Nudging is important in meetings as well as in one-to-ones. A meeting is a forum for gathering and giving information and for making participative decisions. Your job as its supervisor is to keep the discussion on track and to have your subordinates or colleagues (preferably all of them) do the work under your leadership. That is another clear example of management leverage.

Always work towards increasing leverage. Keep this key question in mind. Is what I am doing helping others to increase their contribution to the output of this enterprise? If the answer is No, stop doing it, and find something that really will achieve that end.