



## THE FOUR STEPS OF LEARNING

"Time that is intolerant  
Of the brave and innocent,...  
Worships language and forgives...  
Everyone by whom it lives."

Le temps qui est intolérant  
Des courageux et innocents,  
Adore les mots et donne pardon,  
A tous ceux qui les soigneront

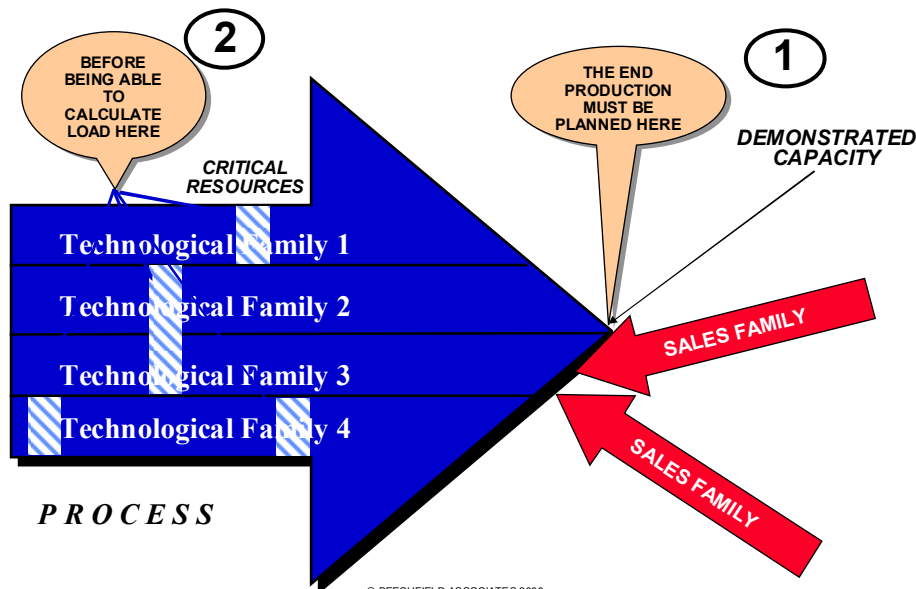


--W. H. Auden (American Poet)

In three successive audits of manufacturing management systems the managers of the 3 companies assured me that they were doing S&OP (Sales and Operations Planning). In the first company, the S&OP consisted in a meeting where only customer demand was discussed. Since the object of the S&OP is to balance the volume of demand and capacity, their definition was wrong.

In the second company, their S&OP compared capacity requirements (loosely, "load") with available capacity. That's not an S&OP, but Rough-Cut Capacity Planning. Following (1) the reconciliation of demand and capacity in the S&OP, (2) the S&OP's Production Plan generates capacity requirements on critical resources:

### DISTINGUISH BETWEEN (1) THE S&OP AND (2) ROUGH-CUT CAPACITY PLANNING



In the third company, their S&OP compared demand with capacity, but for individual items, and by month. It was neither an S&OP, which functions by family, nor a Master Production Schedule (MPS) which is expressed by item but by week. Their definition was wrong too.

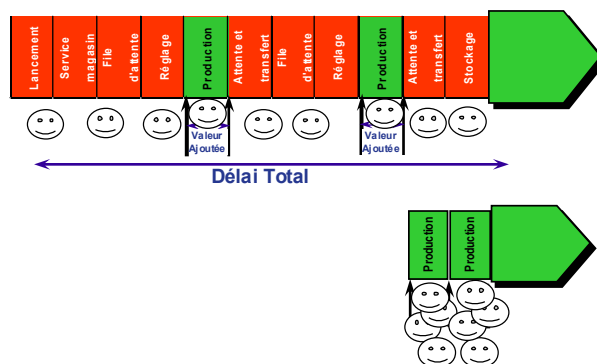
The Johnson O'Connor Laboratory ([www.jocrf.org](http://www.jocrf.org)), which has been measuring innate aptitudes and the vocabulary level of individuals for nearly 100 years, recognizes four steps in learning a word:

1. **Unknown:** I don't know the word
2. **Vague idea:** I know how to pronounce it and what area it relates to
3. **Inverted:** I think that the opposite definition is correct
4. **Known:** I do a 180° shift to fix the right meaning in my mind  
(Note: IN practice, going from Step 3 to Step 4 requires a bit of energy!)

Take Lean for example. Many people think that it's a way of reducing costs and of getting rid of people (Step 3 above).

Anyone having understood the correct definition of Lean knows that, on the contrary, Lean **depends** on people to identify and remove the obstacles encountered by the product or service as it goes through the production process. Lean frees resources used previously to overcome these obstacles. Consequently, Lean is a growth strategy (see our Technical Newsletter No. 53).

#### LEAN LIBRE DE LA CAPACITE POUR PRODUIRE



It would be possible to produce the same amount with less resources, meaning less people. But without the people, the company can't continue to do Lean. The remaining people are generally limited to making a fixed system function, or to participating in projects which don't differ much from "action plans".

If Lean is used to produce more with the same resources, the company enters on a path for growth, by creating new products and by conquering new markets. That's the best way to protect the company and to build its future.