Malaysian Management Journal 2 (1), 1-10 (1997)

Educating Managers to Learn Strategically on the Job: Lessons from British Managers

MAKOTO KANDA
Economics Faculty, Meiji Gakuin University, Tokyo, Japan

JOHN B. KIDD
Information Management Group, Aston Business School, Aston University, Birmingham, UK

ABSTRACT

We hypothesised that the best way of modifying managers' behaviour is by changing the processes involved in their making and implementing their own strategic plans. To obtain data we used a questionnaire (survey), which focused on the linkages between British senior managers' behaviour. Specifically we studied the above processes from which we determined their chances of learning how to behave.

The survey findings indicate the best principles for learning by managers; we can therefore suggest implications for structuring their strategic planning processes and their implementation. We propose how best to educate managers to be good learners.

KEY WORDS

Organizational learning, British manufacturing industries, strategic change, innovation, single & double loop learning, deutero-learning.

MANAGERS AND THEIR LEARNING OF STRATEGY

The most important task for managers is to plan for their own department and implement this plan, and if necessary to rearrange it. The corporate strategy is generally intended to enhance competitiveness, so the ability of managers to complete all the tasks in line with the corporate strategy affects the competitiveness of the company. This is realised only through successful implementation. Thus, the strength of a company depends on each manager's ability.

Corporate strategy cannot normally be realised by only one plan, especially when a company faces a turbulent environment. Based on a basic orientation of the company, detailed measures may have to be adjusted according to changes: at times the basic orientation itself may have to be changed. In either case, managers have to make adjustments to their own plans through a realisation process. They have to learn not only what kind of plan fits well under which situation, but also how to adapt themselves to changing situations. Their ability both to change plans and to learn how to change determines the long range competitiveness of the company.

The Managers' Way of Learning

It may be proposed that people learn, or acquire new knowledge in the form of cause and effect relationships; under certain circumstances (condition), if someone undertakes a particular behaviour (cause), it will lead to a certain type of result (effect). When s/he wants to get the results (aim) under a condition, s/he should instigate a particular behaviour (means). Thus, the acquired new knowledge turns into practical know-how.

Argyris & Schon (1987) identify three types of learning. When one gets knowledge about a better means under a given aim, this is called 'single-loop' learning. When the person has an opportunity to assess the aim as well and to get new knowledge about both aims and means, it is called 'double-loop' learning. When there is the possibility to understand when to go for either single-loop or double-loop learning, this is the level of 'deutero'-learning, or "learning how to learn".

Consider the planning and implementing process of a manager. If s/he is given an aim from her/his superior and allowed only the means to achieve it, all s/he can achieve is single-loop learning. When s/he has an opportunity to discuss the appropriateness of the aim and modify it (so that s/he can get new knowledge about the aims and means relationships), s/he is well into double-loop learning . S/he can 'learn how to learn', when s/he gets to know how to collect and interpret data, and how to set aims based on it. Now s/he can understand her/his way, and the company's way of learning so that s/he can improve the decision making itself (see Figure 1).

We see a company has to develop and support the processes whereby managers can learn not only single-loop and double-loop learning, but deutero-learning as well.

Organizational Learning

The individual learning of an organization member is different from organizational learning. Individual learning has to be exchanged and shared with other members and transformed into common knowledge before the organization can be said to learn. Huber (1991) models the steps of organizational learning and identifies different aspects. He suggests, when some unit of an organization acquires new knowledge, it is a sign of the existence of learning. However as long as it is inside the unit, there is no chance for sharing. It has to be distributed to other units; it is then that the organization widens its learning. Furthermore, when other units interpret the information from their own perspectives the data is elaborated and it is amended into more thorough know-how. Each unit can utilise the know-how for its own use. When it is codified and stored in documents, so that the unit which needs it can access it more easily, the organization achieves a much stronger ability for learning (see Figure 2).

The key points in designing interaction patterns among units of an organization are;

* to encourage individual units to acquire new knowledge,
* to make each unit distribute its own knowledge to others and allow them to interpret it for each other, and
* to make a data base for organizational usage.

The Organization as an Inhibitor

An organization is an entity to achieve a goal which cannot be achieved by an individual.

FIGURE 1. Manager's Level of Learning

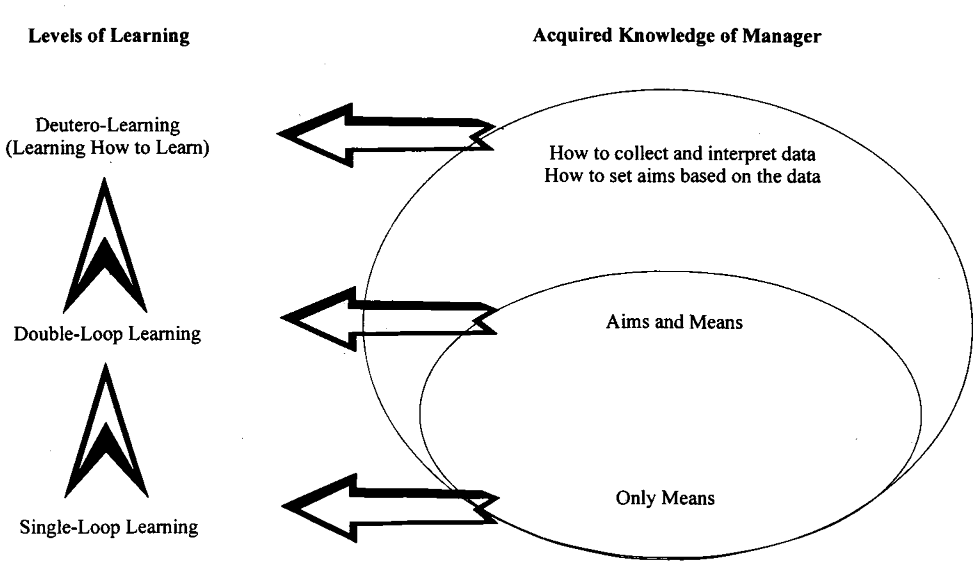
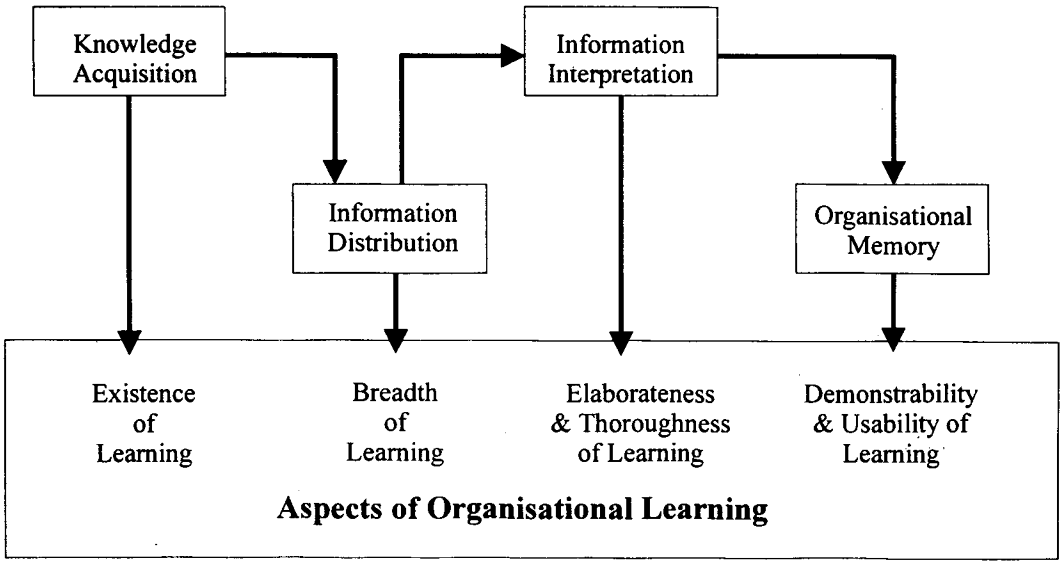


FIGURE 2. Learning Steps of an Organization—Huber's Model



The organization can overcome the limits of individuals. However, organizations are not perfect—at least as far as learning is concerned.

A company tries to learn how to adapt its behaviour according to the changing environment, and first it should understand the dynamics of environment. Although it may try harder, it is impossible to understand perfectly how and why customers and competitors move. Rather it pretends, or simply believes that it can understand. March and Olsen (1976) call this incompleteness as "learning under ambiguity". Likewise, it is impossible to forecast how the environment will react to the company's activities perfectly; the organization assumes that it can predict how customers will react. This is called "surreptitious learning".

In a company, each individual and department has its own role. The "division of labour" is one formal description of how an organization should work. The role, however, influences role-takers in that they act or think in a particular way. Sales staff, for example, think and act differently from accounting staff. Thus, the role itself limits learning. This is referred to as "role restrained learning". The "division of labour" also inhibits its members from performing autonomous, self-complete work. Planning staff, as an example, always are the ones to make plans and pass them to line members for implementation. This implies that both cannot self-complete their own work. They both are forced to be like an audience for some parts of the work—thus an organization produces "audience learning".

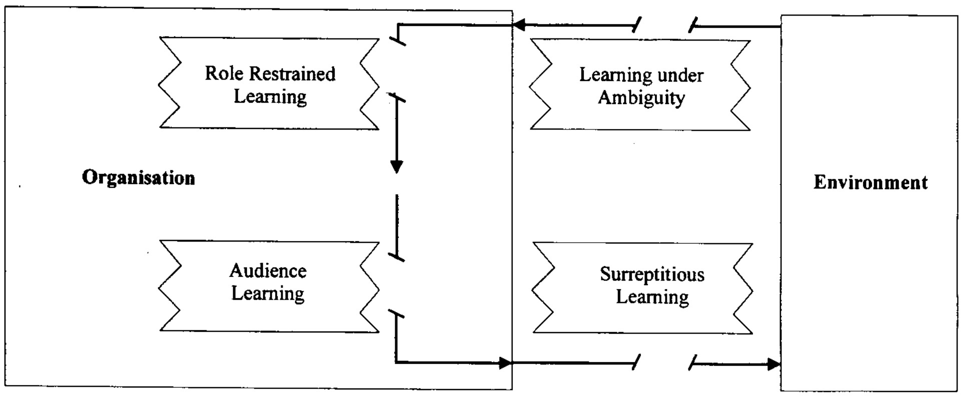
Design of Interactions among Managers

How should we overcome the incompleteness of organizational learning? One possible way is to design the interaction patterns of managers so that they can learn more effectively, despite their limitations.

While psychological learning theory stresses the accumulation of knowledge about actions under an environmental stimulus (same stimulus, different response), a business organization cannot generally learn through this type of learning because of its ever changing environment (Weick 1991). Accordingly, an organization has to learn from only a few events (an environmental stimulus and organizational response set), or may be even from one single event.

To exploit fewer events, an organization has to experience them richly, namely, to ascertain more detail of the events, try more interpretations, and judge them from different preferences (March et al. 1991). In other words, it has to look at the events from as many viewpoints as possible. In the planning and implementing process, managers from different

FIGURE 3. Incompleteness of Organizational Learning



positions and departments should participate right from the initial collection of data through to decision-making: to analyse, interpret, and assess the strengths/weaknesses of the company, and the opportunities/threats of the environment.

The "division of labour" obstructs organizational learning, but, interestingly, enhances it when differences in perception caused by role differentiation can be exploited. The goal is to design interactions among managers to support their processes of plan realisation.

Making a Mental Model Explicit

From his experience in Shell, de Gues (1988) showed how strategic planning turns into institutional learning by making the managers' shared mental models explicit. The mental model contains implicit assumptions about trends in the environment, competitors' behaviour, and so on. It thus constructs a base for making plans. However, it is rare for managers to discuss the plan, because implicitly they think they have already shared it among themselves. This inhibits their learning. They accept the assumptions, or the givens without any doubt, which means they possess only single-loop learning.

It is necessary to discuss openly the assumptions if managers want to step-up their learning to double-loop and/or deutero-learning. They have to reflect on their own ways of grasping problems and deriving solutions, and raise questions as to whether it is the best way or not. It may look like a loss of time, but it is unavoidable if the goal is to be reached.

Therefore, it is a key point within the design of the strategic planning and implementation processes that managers should discuss not only the aims and means, but also the way they themselves behave while they are considering the processes.

So, what kind of strategic realisation process should we design? To answer the question, we first must know how managers learn in their daily processes. Only after understanding this can we design an effective process. The types of learning behaviour presented herein are based on our survey of British senior managers.

OUTLINE OF THE SURVEY [1]

The survey focused on the so-called on-the-job learning, or the "learning by doing" of British senior managers. The survey framework is shown below (Figure 4).

Senior managers are involved in the strategic realisation process through making their own plans, implementing them, and monitoring them. Their involvement differs depending on their position, department, and

FIGURE 4. The Survey Framework of Manager's Learning

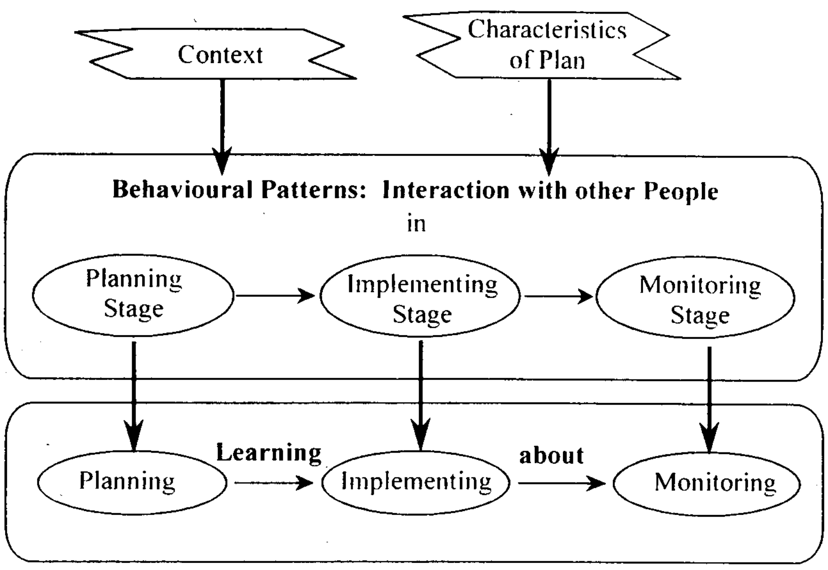
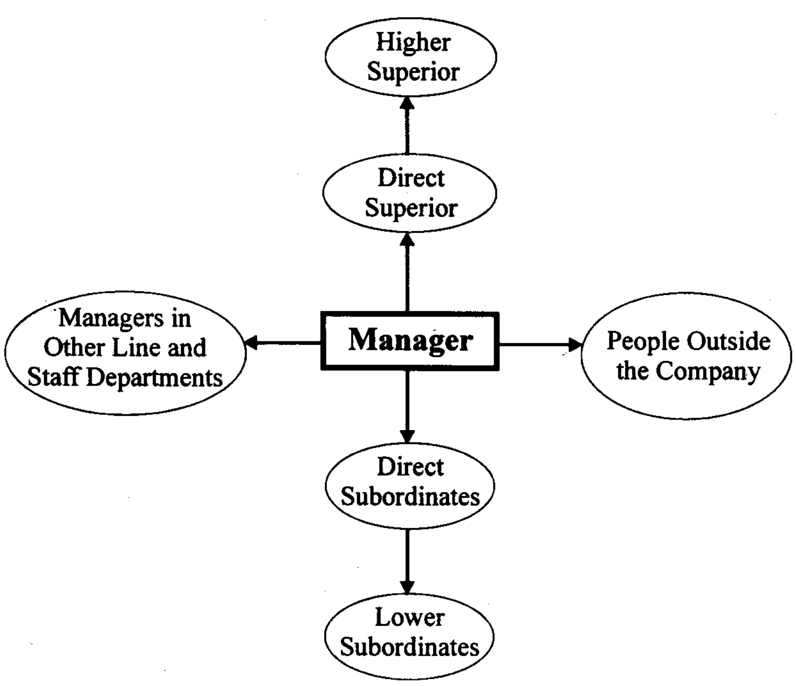


FIGURE 5. Manager's Interactions



job description: this is the context within which their types of behaviour are embedded. The characteristics of plans for which they are responsible also affect their behaviour. Under this contextual situation, they behave both formally and informally.

The types of behaviours peculiar to a manager are categorised by her/his interactions with other people both inside and outside her/his company. These interactions are shown in Figure 5.

The Sample Frame

Questionnaires were sent to 621 British manufacturing companies having more than 1,000 employees in June 1993. The questionnaire was directed to senior managers who were in charge of production. There were 150 usable responses (response rate 24.2%).

The respondents were directors (28%) and managers (70%): The percentage breakdown via major divisions was:

production/operation	77.3
finance/accounting	7.3
personnel	3.3

PRINCIPLES FOR THE LEARNING MANAGERS

The analysis of the data indicates principles for the learning managers. These are consistent mainly with the British culture, though they might look universal.

The Totality of Learning

Respondents were asked to judge their own learning opportunities. These were questions having a 5-point scale;

* learning how to collect necessary information;
* learning how to interpret the information in the planning stage;
* learning how to motivate subordinates;
* learning how to get necessary support from other departments at the implementation stage;
* learning how to monitor the implementation;
* learning how to rearrange the plan in the monitoring stage.

The managers' types of behaviour were evaluated by referring to these aspects of learning opportunities. The behaviours that have positive effects on the learning opportunities are judged as better.

A correlation analysis among these indices shows that all indices correlate significantly and positively to one another, which means that learning requires a totality of interaction over these issues. Thus we may say managers who are good at learning how to collect information are also good at interpreting, motivating her/his subordinates, and so on. So, we assess managers' behaviours as better when there is a satistically significant effect on at least one of the six indexes.

Loosen the Frame of Reference

The position and department of a manager do not have any significant effect on the learning, whereas the existence of a job description is significant. The majority of respondents (67.3%) have a written job description. We find that those who do not have a formal description learn better than those who have.

The hierarchical features of an organization may not determine the manager's learning style, but the job description could fix her/his style. It restrains her/his learning, or frame of reference (role-restrained learning). Thus, loosening the frame is a first step for the learning of managers.

Choose an Appropriate Feedback Time

Managers make different plans in their time ranges, or they may have different time ranges for the same type of plan. A manager may make daily, weekly, monthly, quarterly, yearly or longer plans, depending on her/his position. These plans (for a given person) are strictly connected to one another, thus managers could concentrate on some to enhance their learning ability.

Comparing the averages of the indexes between those who make a plan in a particular time span and those who do not, we can find an appropriate feedback time for learning. There are no significant differences in 1-month, 2-year and 3-year plans. However, those who make plans on a 3-month basis learn less, yet learn more through using 6-month and/ or 1-year plans. It seems useful to build in a learning mechanism for the 1 year plan realisation process, since almost all (76.7%) companies use this plan format at the senior manager level. We consider there is a most desirable time span within which managers can learn through an effective feedback loop: 3 months is too short and more than 1 year is too long.

Make Longer Contacts with Superiors and Subordinates

The planning stage is divided into four phases; gathering data, evaluating data, making proposals, and making decisions. Managers attend meetings in each of these phases, which in turn determines their interaction patterns during the whole planning stage.

The analysis shows that the attendance of a higher superior and the direct subordinates at the phase of data gathering promotes the manager's learning. Later in the sequence, the attendance of direct subordinates at both the proposal-making and the decision-making phases promotes learning.

Early access to the higher superior in the data-gathering phase would help a senior manager understand the meaning of the data. S/he could better comprehend why and how to get important data which would be more closely linked to the corporate strategy; that is, s/he would learn how to learn. The involvement of the subordinates up to the decision-making phase would also help them understand the wider background of the data. Thus the manager could discuss the validity of the interpretation of the data from the viewpoint of the subordinates who gathered it.

Interpret Data Autonomously then Discuss with Other Departments

The attendance of members of other departments at the evaluation phase obstructs the manager's learning. However, their attendance in the proposal-making phase and for decision-making enhances the manager's learning. Rich informal contacts, moreover with staff departments—face to face, not via a telephone—give more chances to learn.

Managers have to evaluate or interpret the data autonomously in their own departments. Only then can they discuss the appropriateness of the evaluation. It seems a principle for developing the learning ability that, at first, you must think it through by yourself, then check with others, especially with those who have different views. It gives one a chance to verify one's own way of thinking.

Enrich Historical and External Consistency

The respondents assessed the content of the latest plan in terms of the clarity of linkage with their former plans, being in tune with the corporate strategy, and with respect to the plans of other departments. This assessment will incorporate the strengths/weaknesses of the department, and the market trends. A correlation analysis with the learning indexes unveils that clear linkage and better tuning with market trends promote the learning.

Managers have to apply themselves to seek historical and external consistency for their plans. Looking back to the past is a first step towards getting a better new plan. And, though it might be more difficult to tune the contents of the plan with market trends than with a corporate strategy and with the plans of other departments (internal consistency), aspiring for external consistency increases learning opportunities.

Encourage and Explain Completely to Subordinates

Almost all of the managers encourage their subordinates and explain their plans and targets. The majority of managers explain more widely than just to their direct subordinates. Both encouragement and explanation help managers learn. In other words, encouragement and explanation are not just for subordinates, it also aids the managers themselves. Managers have to understand the plan more deeply when they are to persuade their subordinates: they must reflect on their own words.

Explanation or giving subordinates information can provide a manager with a chance to learn, because:

* s/he has to prepare the information before s/he gives it,
* the explanation and discussion with subordinates about the information is itself a great opportunity for self-learning,

* giving information to subordinates provides chances to share the meanings of the wider background of the plan, which enhances the possibility for the subordinates to learn by doing. This may act as feedback to the manager.

In other words, s/he has to exploit the explanation so that all these issues may be met.

Managers give information about the contents of the plan, implementing methods, corporate strategy, market/customer trends, competitors' behaviours, and other departments' related plans. Individually each piece of information does not affect the learning, but it is the *combination* which is most important.

The contents of the plan and the implementing methods are information sets that are internal to one's own department. Corporate strategy and the other departments' plans are external to the department, while market/customer trends and competitors' behaviours are external to the company. The information internal to the department is completely given when both the content and the implementing methods are presented to subordinates; it is not completely given in cases where one or neither of them are presented.

An analysis of relations between the completeness of giving information and learning uncovers that completeness of information both internal and external to the department stimulates learning, but that using only data external to the company does not. However, when given with information that is both internal and external to the department, it does stimulate. The completeness of the mix is the point.

Building the Co-Learning Loop from Inner to Outer

In the monitoring stage, managers monitor a wide range of people—direct subordinates, lower subordinates, direct superiors, higher superiors, related line and staff departments, customers, and outside institutions. Monitoring direct and lower subordinates, higher superior, and staff departments individually has a significant, positive effect on a manager's learning.

But more importantly, it is the combination of monitoring that matters. The combinations are categorised into the following:

* direct vertical: direct superior and direct subordinates
* indirect vertical: higher superior and lower subordinates
* wider vertical: direct vertical and indirect vertical
* upward: direct and higher superior
* downward: direct and lower subordinates
* horizontal: line departments and staff departments
* external: customers and outside institutions

An analysis of the relationships between the combinations and learning shows that direct vertical, upward and downward monitoring enhances learning; but indirect vertical, horizontal, and external are statistically indifferent. Wider vertical monitoring also enhances the learning. Thus we find the combinations along an organizational hierarchy are more important to a manager's learning than the horizontal or the external. However, the horizontal and external monitoring become effective when they are linked with hierarchical combinations.

Managers therefore have to build up learning loops: at first with direct superiors and subordinates, and then secondly to widen it to higher superiors and lower subordinates along with the hierarchy. Only after strengthening these loops can they fortify the loops by linkages with other departments and linkages outside the company. In other words, the manager's ability for learning could be judged by the range of established learning loops.

By the way, the key role of monitoring is to find the gaps between the plan and the actual performance. When there is a gap, managers should check such items as the ability of their own department, their own leadership, the implementing methods, the feasibility of the plan, the progress of related departments, changes in markets/ customers, and changes in competitors.

A factor analysis of the importance of these items reveals that managers categorise the checking items into the following three groupings:

* outside the company: changes in market and competitors
* inside the company: implementing methods, feasibility of the plan, and progress of related departments
* inside the department: ability of their own department, and own leadership.

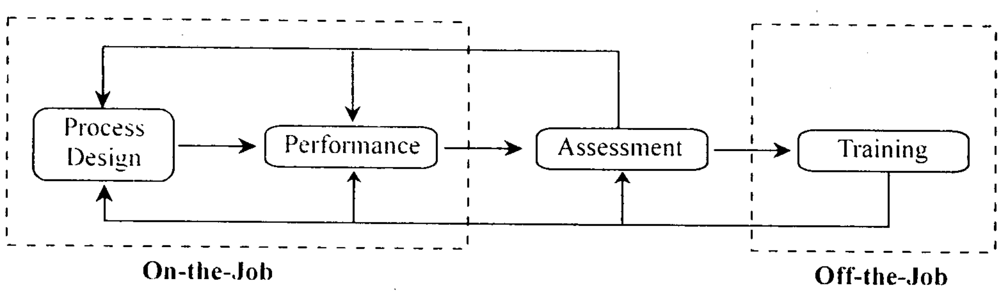
A correlation analysis shows that it is difficult to learn by checking the ability of their own departments and the changes in the markets. It may be suggested that it is easier to learn from "inside the company" than from "outside the company" or "inside the department". In other words, it is difficult to learn from the nearest and the farthest viewpoint.

Almost all managers have formal meetings to discuss gaps between the plan and real performance. They discuss with higher and direct superiors, direct and lower subordinates, and related line and staff departments. They learn from the contacts with all attendants, but less with the higher superior. They also have informal contacts: they learn with subordinates and staff and line departments, but not with direct and higher superiors. As far as the gaps are concerned, it looks better to learn with subordinates and colleagues from other departments. In other words, managers have to learn from so-called hands-on information and from different viewpoints to overcome their gaps.

Giving the Authority to Rearrange

About half of the respondents have the authority to rearrange the plan, when they find the gaps. Those who have authority learn better than those who do not. The delegation of the authority to rearrange is an effective learning tool for managers.

FIGURE 6. The Learning Facilitator: The Linkage Between On- and Off-the-Job Situations



CONCLUSION

Educating Managers to Learn Strategically on the Job

Though managers have, and are required to have, various kinds of skills, those that directly link to strategy realisation are critical; that is, the skills that are exhibited in the planning and implementing processes.

Our analysis has made it clear when and how a manager learns her/his behaviour through performing. This provides insight as to how we should design the process. Based on the principles extracted from the analysis, we can construct processes which provide more opportunities for learning. The design itself, however, does not make sure that a manager automatically learns, though the probability would be higher. Another mechanism must be built in to promote the learning.

The manager's ability is developed by both on-the-job and off-the-job training. The critical point here is to link both the on- and the off-the-job training. The process design can develop ability through on-the-job performance, but has little influence on the off-the-job. To increase her/his ability, her/his performance must be assessed in terms of her/his totality of learning. The results of the assessment can then be utilised:

* to help managers understand their strengths and weaknesses;
* to develop their skills in training; and,
* to improve, if necessary, the process itself (see Figure 6).

The organization itself has to build in the learning facilitator mechanism to help its managers learn more effectively. It has to learn as an organization how to help individuals. In summary, a company has to learn to help its members learn effectively.

NOTES

(1) We are undertaking a comparative study of strategic planning behaviour between British and Japanese managers. This paper is the result from the British survey.

REFERENCES

Argyris, C. & Schon, D.A. (1978). *Organizational Learning: A Theory of Action Perspective,* Reading, Massachusetts: Addison-Wesley.

de Gues, A. P. (1988). Planning as Learning, *Harvard Business Review,* **March-April**: 70-74.

Huber, G. P. (1991). Organizational Learning: The Contributing Processes and The Literatures, *Organizational Science,* **2 (1)**: 88-115.

March, J. G. & Olsen, J.P. (1976). *Ambiguity and Choice in Organizations,* Bergen: Universitetsforlaget.

March, J. G., & Sproul, L. S. & Tamuz, M. (1991). Learning from Samples of One or Fewer, *Organizational Science,* **2 (1)**: 1-13.

Weick, K. E. (1991). The Non-traditional Quality of Organizational Learning, *Organizational Science,* **2(1)**: 116-124.