# 05348 Jerie Research Memoranda

1992 033

Different perspectives on organizational learning a literature survey

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Research-Memorandum 1992-33 Amsterdam, 29 september 1992





# DIFFERENT PERSPECTIVES ON ORGANIZATIONAL LEARNING A LITERATURE SURVEY

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#### Abstract

Although there is wide acceptance of the notion of organizational learning, no theory or model is widely accepted. The purpose of this paper is to review the various perspectives on organizational learning. To provide an insight into the common propositions concerning organizational learning, studies are classified into six different perspectives on the subject: organizational learning as adaptation, organizational learning as assumption sharing, organizational knowledge, top-level learning, the learning of innovative organizations and learning during the organizational life cycle.

Subsequently, these different approaches are divided into three dimensions, i.e. the level of learning, the content of learning and the motive of learning. These dimensions may be used to explain the different conceptualizations of organizational learning.

#### 1. Introduction

The interest in organizational learning stems as far back as four decades ago when Simon firstly paid attention to it. In 1953 he concluded his analysis of the early growth of goals and structure in the Economic Cooperation Administration with the following comment about the short-run adaptations that he had observed:

"We recognize that environmental forces mold organizations through the mediation of human minds. The process is a learning process in which growing insights and successive restructuring of the problem as it appears to the humans dealing with it reflect themselves in the structural elements of the organization itself." (p. 236)

Since then, a number of writers have generated important insights about learning and its contribution to organizational effectiveness thereby approaching the subject from different perspectives. This various insights may possibly result in a situation of not seeing the wood from the trees. Therefore, this paper reviews the literature on organizational learning and highlights the different perspectives and assumptions of the concept. The attempt is made to summarize the research in this area into four categories:

- a organizational learning as adaptation
- b organizational learning as assumption sharing
- c organizational knowledge and organizational learning systems
- d organizational learning at the top level

Based on these approaches, an initial definition of the concept is generated. This definition serves to investigate other organization theories which do not explicitly make use of the words 'organizational learning', but do fall under the definition. This effort yields two additional categories:

- e learning of innovative organizations
- f learning during the organizational life cycle

It has been pointed that the complex nature of the concept is (i) partly due to the ambiguity around the significance of the content of learning (e.g. Fiol and Lyles 1985, Shrivastava 1985) and (ii) partly due to the tendency to mix up the individual and organizational level of learning (e.g. Kuypers 1991, Wash and Ungson 1991). Therefore, the question where the cited literature can be situated in the light of this

debate surrounding organizational learning will be dealt with.

## 1.1 Organizational learning as adaptation

The notions of organizational learning have originated in an attempt to answer questions raised by the contingency perspective. Under this perspective organizations are treated as open systems which engage in exchanges with their environments. The central proposition of this perspective is that organizational effectiveness is directly related to the degree that internal organizational structures and processes "fit" the characteristics of the organization's environment. As environment changes, these structures and processes must change to maintain this fit. As a result of this insight, researchers have devoted considerable attention to the question of how to design organization to meet the demands of the environment. Much of this work has focused on how organizations deal with the complexity and uncertainty presented by their environment (e.g. Woodward 1958, Burns and Stalker 1961, Lawrence and Lorsch 1967, Galbraith 1973, Mintzberg 1979). It is generally accepted that these requirements are different for organizations acting in a simple and/or static environment than for organizations acting in a complex and/or dynamic environment. Unlike the requirements of a mechanistic organization acting in a certain and static environment, the requirements of the organic organization dealing with an ongoing change of the environment raise many important questions. How can an organization be consistently effective over time given that changes occur in its environment? How is the fit between organizational structures and processes and the characteristics of the environment obtained and more important, maintained? With the rise of organizations acting in turbulent and uncertain environments, these questions have gained a dominant position in the literature on organizational adaptation as a learning process.

Some researchers have concluded that organizational learning occurs in response to immediate problems, imbalances and difficulties much more than it does in response to deliberate planning (e.g. Cangelosi and Dill 1965). By the identification of 'a performance gap' as a major influence on learning (Downs 1966), organizational learning can be considered as strategies to adapt to changes in the environment.

Cyert and March (1963) also perceive organizational learning as adaptation to changes in the environment. This adaptation focuses on three different phases of the decision-making process: adaptation of goals, adaptation in attention rules, and adaptation in search rules. The behavioral theory of the firm assumes that organizations change their goals on the basis of their experience. Goals are continuously adapted to incorporate the experience of meeting previous year's goals, and also the experience of other organizations in a similar situation. Adaptation in attention rules refers to the selective attention that the organization give on different parts of the environment. Organizations learn to attend to some parts of the environment and ignore others. Similarly, adaptation in search for solutions is also conditioned by previously tried solutions. Success reinforces and failure discourages repetition.

March and Olson (1975) provide an analysis of organizational learning under ambiguity which incorporates limits on learning in organizations. They describe a model of 'simple complete cycle of organizational choice' in which the individual actions affect organizational actions, which in turn affect environmental responses. The environmental responses or acts affect the individual's beliefs and thus his/her behavior. This model of choice serves as a tool for analyzing learning and adaptation by individuals and organizations. They identify several learning situations such as role constrained learning, superstitious experiential learning, audience experiential learning and experiential learning under ambiguity, which arise as a result of cleavage between the various element in the model.

While Cyert and March (1963) focus on learning as an organizational phenomenon, March and Olson (1975) are primarily concerned with the learning of individual members of the organization.

#### 1.2 Organizational learning as assumption sharing

The basic assumption underlying this perspective is that organizations translate their internal and external environment in terms of their own frame of reference. This idea is close to Berger and Luckman's (1967) concept of the social construction of reality and that of enactment as described by Weick (1979). Weick argues that organizational members share perceptions of what factors comprise the environment

of the organization. This process of enacting the environment in a sense creates the reality of organizational environments. It therefore can also be seen as analogous to Kuhn's (1970) concept of a paradigm. This 'sets of beliefs, a way of seeing or organizing the principles governing perceptions', are to a large extent particular to a specific organization. That is, a given organization is characterized by a paradigm that is shared by organizational members. These paradigms provide a common language which makes possible the sharing of experience and insights among organizational members. Although differently labelled, in most of the literature on organizational learning this idea of the existence of a shared frame of references has been addressed. Here, it is sufficient to refer to Argyris and Schon (1978) which can be considered as a mile-stone in this perspective.

Although Argyris and Schon talk about "a detection of a mismatch of outcomes to expectation which disconfirms organizational theory-in-use" (p. 19), this detection does not necessary has to be adaptive. They distinguish adaptive learning (which they label single loop learning) from learning which affect the fundamental organizational theory-in-use (which they label double loop learning) and deutero learning (which means learning how to learn). Single loop learning occurs when error correction proceeds by changing organizational strategies within a constant framework or norms of performance. Double loop learning involves restructuring of organizational norm and restructuring of strategies and assumptions associated with those norms. It involves fundamental changes in the organizational frame of reference or 'theories-in-use' prevailing in the organization.

In there own words, organizational learning is described in the following terms: "Just as individuals are the agents of organizational action, so they are the agents for organizational learning. Organizational learning occurs when individuals, acting from their images and maps, detect a match or mismatch of outcome to expectation which confirms or disconfirms organizational theory in use. In the case of disconfirmation, individuals move from error detection to error correction. Error correction takes the form of inquiry. The learning agents must discover the sources of error - that is, they must attribute error to strategies and assumptions in existing theories-in-use. They must invent new strategies, based on new assumptions, in

order to correct error. They must produce those strategies. And they must evaluate and generalize the results of that new action. "Error correction" is shorthand for a complex learning cycle.

But in order for organizational learning to occur, learning agents' discoveries, inventions, and evaluations must be embedded in organizational memory. They must be encoded in the individual images and the shared maps of organizational theory-in-use from which individual members will subsequently act. If this encoding does not occur, individuals will have learned but the organization will not have done so." (p.19)

Just like March and Olson (1975), this perspective on organizational learning is mainly directed towards individual members. The bridge between individual learning and organizational learning is not explicitly dealt with.

## 1.3 Organizational knowledge and learning systems

According to Duncan and Weiss (1979), none of the above mentioned theorists have offered any clear insight into how this learning takes place and where these images and maps come from. They argue that organizational effectiveness is determined by the quality of the knowledge base available to the organization for making the crucial strategic choices. Organizational learning, then is defined as:

"the process within the organization by which knowledge about action-outcome relationships and the effects of the environment on these relationships is developed" (p. 84).

Organizational learning is considered as a continuing evolutionary process whereby extension and or refining of the knowledge base is the outcome. These increments reflect the addition of new statements of action-outcome relationships which are added to or supersede existing statements.

Occasionally, however, this process is disrupted by 'paradigm revolutions'. These revolutions are caused by experience of performance gaps which cannot be resolved within the paradigm. The revolutions are somewhat similar to the double loop learning process cited by Argyris and Schon (1978).

According to Duncan and Weiss (1979), knowledge is only organizational when

it becomes exchanged and accepted by others. In order to perpetuate this process, parts of it are institutionalized in the form of formal learning systems and informal organizational practices. Learning systems are the mechanisms by which learning is perpetuated in the organization. Examples of these learning systems include strategic planning systems, management information systems, and informal arrangements like informal information and communication networks.

The concept of learning systems puts the idea of organizational learning in a more 'down to earth' perspective and therefore makes it more appropriate to empirically test the underlying assumptions of organizational learning. One of the first attempts to operationalize organizational learning is the study of Jelinek (1979). She examined organizational learning systems in Texas Instruments used to manage the continuous stream of innovative products manufactured by the firm. The O.S.T. (Objectives, Strategies and Tactics) system is a management planning and control system consisting of a series of linkages between long range goals and shorter-range activities and the funding necessary to implement them. The long-range goals look forward by 10-15 years; these are broken up into short run business objectives for each business of Texas Instruments. The strategies provide guidelines for the coming 3-4 years. Finally the tactical action programmes detail the day to day activity with their current funding status. The O.S.T. system is presented as an organizational learning system by which individual insights and knowledge were institutionalized into a systematic procedure for successfully managing the innovation of new products.

Another research on organizational learning systems is conducted by Shrivastava (1981). He documented several organizational learning systems that were encountered in the sample organizations. These learning systems included a variety of formal, informal, cultural, and historical schemes for managing the process of knowledge sharing within the organization. Some of the learning systems were systems in the sense of formal management information and control systems, others were systematic ways of viewing organizational problems and sharing them with other organizational members. An important feature of these systems is that they attempt to objectify the subjective personal knowledge of individual members into an organizational knowledge base.

The idea of institutionalizing learning has been criticized by Mintzberg (1989). Directing his critic towards the study of Jelinek and her notion of administrative systems capturing knowledge about the task, he argues that those systems captured nothing, they failed soon after her book was published:

"..Texas Instruments' own fancy planning system was subsequently believed to discourage innovation. In fact, there never was any evidence that the company's success stemmed from anything more than a capable leader who knew how to learn and whose own energy and enthusiasm enabled him to attract good people and to invigorate them. Good people, of course, make for good organizations. They also design good systems, at least systems that are good for them. But remove the good people and the systems collapse. Innovation, it turned out, could not be institutionalized." (p. 350)

#### 1.4 Top-level learning

The latest interest into the concept of organizational learning can be interpreted as the idea that the organization need a brain that will be able to think for the rest of the organization. Garrat (1987) as well as De Geus (1988) perceive organizational learning as learning in organizations. The learning agents are thereby restricted to the directors (Garrat) or the company's senior managers occupied with planning (De Geus).

Garrat's main point of interest is the role of directors in organizations. It seems that, finally at the top, directors do not know what they should be doing while they are expected to know everything. According to Garrat, this striking reality hampers organizational learning processes since for an organization to be effective, it needs a permanent brain. The role of director therefore requires a change in thinking as a specialist ('either/or'-thinking) to thinking as a generalist ('both..and'). Further, the director must be able to cope with more uncertainty and ambiguity and has to allow synergy between specialisms to operate at the core.

According to De Geus, fundamental changes in organizations strategies or major innovations depend on the ability of a company's senior managers to absorb what is going on in the business environment and to act on that information with appropriate business moves. He defines organizational learning as:

"..the process whereby management teams change their shared mental models of their company, their markets and their competitors" (p.70).

The emphasis is on opening up communication and the acceptance that the whole is larger than the sum of the parts.

Although interested in the role of leaders in a learning organization as well, Senge (1990) as well as Strata (1989) have a more modest interpretation of the brain-like function of the management at the top. Senge has picked up the old assumptions of the theory on organizational learning. He emphasizes the distinction between adaptive learning and generative learning. Adaptive learning is about coping with the environment and can be seen as the perspective on learning described above (Cangelosi and Dill 1965, Cyert and March 1963, and March and Olson 1975). Generative learning is about creating as well as about adapting. It requires new ways of looking at the world. Generative learning will be reached by means of creative tension. As the following description of the concept shows, the idea of generative learning can be seen as an other formulation of Argyris and Schon's (1978) idea of double loop learning.

"Creative tension comes from seeing clearly where we want to be, our "vision" and telling the truth about where we are, our "current reality". Creative tension can be resolved in two basic ways: by raising current reality toward the vision, or by lowering the vision toward current reality. Individuals, groups and organizations who learn how to work with creative tension, learn how to use the energy it generates to move reality more reliably toward their vision" (Senge p.9).

These recent perspectives have in common the idea that organizations need a brain-like function, somewhat similar to the notion of think tanks, that will be able to think for the rest of the organization. The innovative aspect of these recent perspectives is the focus on the roles, skills and tools for leadership in learning organizations. These insights makes the phenomenon more accessible for empirical research. The disadvantage however, lies in the chance to restrict the view of organizational learning as a top-down process.

#### 2. Towards an initial definition

Looking at the four different perspectives on organizational learning, cynical readers can assert that the only thing these perspectives really have in common is the fact that all studies make explicit use of the words 'organizational learning'. Because a commonly shared definition of the concept is lacking, the survey has been directed by a search for studies in which these words form the major topic. The use of this criterion has the important drawback of excluding those studies which do not make use of the words although they do implicitly refer to the notion of organizational learning.

To meet this drawback, the effort must be made to generate an initial definition of the concept which can serve as criterion for selecting studies on the same subject. First of all, the major themes that characterize the above cited research are summarized. Subsequently, an initial definition will be proposed based on a synthesis of these views.

A summary of some of the themes that have characterized the cited research yields the following topics:

- Although individuals are the agents through whom the learning takes place, organizational learning is seen as an organizational process rather than an individual process. (We will return to this confusing nature of the concept later in this paper).
- 2 Organizational learning is an ongoing process of improving actions.
- Designing organizations to encourage learning means moving away from the mechanic structures and bureaucratic principles towards flexible, innovative structures and principles.
- 4 Organizational learning involves a reorientation of world-views, paradigms, missions, theories-in-use or frames of reference.

These items yield to the following synthesis in the form of an initial definition of organizational learning:

Organizational learning is the organizational process for ensuring long term

survival and growth by constantly reconsider the commonly held frames of reference (thereby making flexible, organic structures inevitable).

With this definition in mind, two important topics of the interest in organizational behavior seem to be absent in the above survey on organizational learning. These perspectives concern the innovative behavior of organizations and the organizational life cycle. Below these two perspectives will be dealt with.

#### 2.1 Learning of innovative organizations

In their search for excellence, Peters and Waterman (1982) conclude that excellent companies are learning organizations. These companies exhibit innovative behavior, that is, they experiment more, encourage more trials and permit failures. To do so they maintain a rich informal environment, heavily laden with information which stimulate diffusion of ideas that work.

After the publication of this best-seller the interest into innovative organizations has grown. It is beyond the scope of this paper to adress attention to all of these studies. Here we pick out two important studies in which the learning behavior of organizations, although not explicitly, is dealt with.

Mintzberg (1989) perceives learning as related to innovative organizations as efficiency is related to the traditional machine bureaucracy. He argues that the innovative organization cannot predetermine precise patterns in its activities. Rather, many of its actions must be decided upon individually, according to the needs of the moment. While any process that separates thinking from action would impede the flexibility of the organization, innovative organizations cannot impose deliberate strategies. Mintzberg refers to "the grassroots model of strategy formation": strategies grow initially like weeds in a garden and these strategies can take root in all kinds of places, virtually anywhere people have the capacity to learn and have the resources to support that capacity. More broadly he labels the model 'the learning model' (in contrast to the planning model).

Although not mentioned as such, it is here where double loop learning (Argyris and Schon 1978) or generative learning (Senge 1990) is present:

"Such strategies become organizational when they become collective, that is, when the patterns proliferate to pervade the behavior of the organization at large." "..emergent strategies can sometimes displace the existing deliberate ones." "With a change in perspective, the emergent strategy can become what is valued." (p. 214)

In her book on innovative organizations "The Change Masters", Kanter (1983) devotes considerable attention to the management in such a context. Like Mintzberg, she refers to the 'grassroots' levels where a wide variety of strategies can grow. The initiatives that come "up" will often be originated low down in the organization where the detailed knowledge of products and markets resides. Unlike Mintzberg who emphasizes on the enabling structure of the organization, namely the "Adhocracy", Kanter places great emphasis on the empowerment of individuals in contrast to the usual top-down authority. To support innovative behavior

"..all the enterprise, initiative and bright ideas of a creative potential innovator may go nowhere if he or she cannot get the power to turn ideas into action." (p. 216)

Referring to the above formulated initial definition of organizational learning, one can not shun the fact that innovative organizations exhibit organizational learning behavior. It is therefore surprising to note that until now, no study on the concept of organizational learning has given serious attention to this perspective. This is even more surprising while, according to Mintzberg, almost every major industry established since World War II can be considered as an innovative organization (1989, p. 197).

# 2.2 Organizational life cycle

Many organization theorists have concerned themselves with understanding the life cycle of organizations: how they are born, grow, and die. In an early contribution in the field, Greiner (1972) argued that growing organizations move through five phases of development, each of which ends with a management crisis. Periods of evolution characterized by prolonged periods of growth with no major upheaval in organizational practice give way to periods of revolution. If the organization is not able to sort out the problems of the particular phase, that is if the organization is not

able to learn, the organization will die.

The first phase characterized by creativity, will result in the crisis of leadership when the founder has to step aside for a strong manager who has the necessary knowledge and skill to introduce new business techniques. Those companies that survive the first crisis will eventually confront themselves with the crisis of autonomy in which lower level managers develop demands for greater autonomy. The solution adopted by most companies is to move toward delegation. However, delegation in the end will result in a crisis of control which must be solved through more emphasis on coordination. According to Greiner, this coordination will finally end in a lack of confidence between line and staff and between headquarters and the field. The organization has become too large and complex to be managed through bureaucratic programs and systems. This 'red tape' crisis will result in the phase of greater spontaneity in management action. This phase builds around a more flexible and behavioral approach to management. This is the last phase in the organizational life cycle of Greiner because at the time of writing no organization has exceded this phase.

Mintzberg (1989) also pays attention to the learning process through which organizations develop and change from one configuration into another. These transitions reflect the intrinsic, political forces of organizations, the naturally occurring forces that sow the seeds of the destruction of one configuration and drive it toward another. Transition which reflect the external changes that occur independently of the organizations are far less common.

The different phases in an organizational life cycle correspond to different configuration. The entrepreneurial organization in the formation stage may transform during the development stage into an instrumental, missionary or innovative organization. In the following maturity stage the instrumental organization as well as the missionary organization will transform into a closed machine (diversified) organization, the innovative as well as the entrepreneurial organization will transform into a professional organization. The political organization is the only configuration present in the decline stage. All configurations, if they were not able to revitalize, will inevitably end up as such. At the end all organizations will sooner of later die. This is

why Mintzberg (1989) talks about the life cycle of organizations instead of life 'sequence'; in a 'healthy' society new, fresh organizations should replace the old, spent ones.

In a contribution to the book of Kimberly e.a. titled "The organizational life cycle", Miles and Randolph (1980) restrict themselves to the creation and early development of organizations. They make explicitly use of the concept of organizational learning. Miles and Randolph see the process of organizational learning in new settings as the vital link between organizational creation and maturity or failure. Based on previous evidence, they assume that after maturity no significant learning will take place; early decisions on subsequent organizational behavior and outcomes have constraining effects on the maturity stage of organizations.

These studies on the life cycle of organizations can be criticized for an overly use of a functionalistic view. An important contribution of this perspective on the notion of organizational learning however is the emphasis on learning as an intrinsic force of the organization. All other approaches, except for some perspectives on innovative organizations, perceive organizational learning as a necessary reaction to the external environment. Later in this paper, we return to these different viewpoints on the motive to learn.

#### 3. Classifying the literature

The different perspectives on organizational learning reveal that the phenomenon is prone to ambiguity and obscurity. As mentioned above, one reason for this confusing nature of the concept, is the unclarity of the content of learning. Another major reason is the confusion whether or not learning can be extended to social and organizational phenomena. In the following an attempt will be made to classify the studies of the above cited researchers into three distinctions:

- 1 the content of learning
- 2 the learning agents
- 3 the motive to learn.

# 3.1 The content of learning

This dimension of learning has frequently been referred to whereby the distinction mainly is made between adaptation and learning. The problem however is that these terms have not been used consistently with the same meanings.

Hedberg (1981) argues that learning and adaptation have all been used to refer to the process by which organizations adjust to their environment. He suggests that learning involves the understanding of reasons beyond the immediate event while adaptations simply means defensive adjustment. He emphasizes that in one form of learning, behavior requires no understanding. This implies that simple adaptation (with no understanding of causal relationship) may be a part of learning but that learning can involve a great deal more.

On the other hand, Meyer (1982) uses the term adaptation to refer to two forms of organizational adjustment that both involve some understanding of action/outcome causal links: Deviation-reducing adaptation occurs when there is understanding within a given set of organizational norms; deviation-amplifying adaptation involves the creation of new causal relationships built on a new base of assumptions. Both of these types of adaptation form part of what Hedberg calls levels of learning.

Fiol and Lyles (1985) try to distinguish learning from adaptation based on two dimensions, namely the content of learning (cognitive and behavioral) and the level of learning (lower and higher level). Cognitive learning concerns the process which affects an organization's interpretation of events, the development of shared understanding and conceptual schemes among members. Behavioral learning has to do with new responses or actions. The level of learning refers to the extent of cognitive development. Lower-level learning takes place when the process merely serves to adjust parameters in a fixed organization (e.g. single-loop learning). Higher-level learning occurs when the development redefines the rules and change the norms, values and world views (e.g. double-loop learning). Unfortunately, it remains somewhat unclear how these two dimensions contribute to the higher dimension of learning and adaptation. Besides, the distinction between cognitive development and behavior development is prone to ambiguity, since most of the research on or-

ganizational learning which emphasis cognitive development, also capture behavior development. The earlier mentioned distinction of Senge (1990) between generative and adaptive learning provides a solution to this objections, since generative learning also captures adaptive learning.

# 3.2 The learning agents

The interest in organizational learning can be positioned on a continuum at which the extremes range from perspectives which treat organizational learning as an individual phenomenon to perspectives which treat organizational learning as a collective phenomenon.

At a congress on "the learning organization" the former extreme was prevalent<sup>1</sup>. The overwhelming conclusion was that organizational learning is an utopian concept. The only learning that occurs is the learning of the individual members of an organization. One can say that this restricted view of organizational learning is due to a literary interpretation of organizational learning as a metaphor, which makes the concept unnecessarily complex. Although the use of metaphors can be very helpful as it is used as a sensitizing concept (Glaser and Strauss 1967) thereby comparing the properties of the subject with those of the metaphor, this possibility to interpret the metaphor too literary is a major drawback. According to Kuypers (1991), a wrong interpretation may result in a reification problem, namely the confusion of the collective and individual level. In that case, the whole idea of organizational learning will be abandoned, since by definition, a learning organization does not exist.

At the other extreme of the continuum, the perspective is that organizational learning is something different than the aggregation of individual learning. Learning can be regarded as a social process rather than a psychological process in the sense that it is comprised of the interaction of individuals and not their isolated behavior. It was Emile Durkheim (1964) who first came up with the idea that collective phenomena or 'social facts' as he labelled them have to be dealt with differently than individual phenomena. Social facts, like organizational learning, arise out of human

<sup>&</sup>lt;sup>1</sup> "De lerende organisatie", Utrecht 19 may 1992

relationships and human association. Just as a fashion cannot be reduced to individual cases without losing the essential meaning of fashion, so can organizational learning not be reduced to individual learning.

Hedberg (1981) states it this way:

"Although organizational learning occurs through individuals, it would be a mistake to conclude that organizational learning is nothing but the cumulative result of their members' learning. Organizations do not have brains, but they have cognitive systems and memories. As individuals develop their personalities, personal habits, and beliefs over time, organizations develop world views and ideologies. Members come and go, and leadership changes, but organizations' memories preserve certain behaviors, mental maps, norms and values over time (p.6)

Most studies on organizational learning can be found in between these two extremes.

#### 3.3 The motive for learning

Most perspectives on organizational learning perceive learning as a reaction to changes in the environment. However, the studies on organizational life cycles revealed that organizational learning does not necessary have to be restricted to externally induced processes. It seems that the need to learn is not just caused by the environment but also by a kind of logic or fixed pattern of change in the life cycle of organizations.

Considering the motives to be innovative as a reaction to the changing environment an organization faces (e.g. Kanter 1983), is a one-sided approach too. Instead of reacting to environmental forces, innovative organizations may be forced by an enthusiastic drive to "prove itself" or "to be the first". It is therefore not striking to learn that innovative organizations are mostly 'young' organizations (Mintzberg 1979).

# 3.4 A classification of the literature on organizational learning

In table 1 the literature on organizational learning is sorted into several

categories based on the dimensions described above. The letters E and I refer to the emphasis placed on an external motive resp. an internal motive to learn.

	Organization	Individual
Adaptive learning	Cyert and March (E)	Cangelosi and Dill (E)  March and Olson (E)
Generative learning	Duncan and Weiss (E) Jelinek (E) Shrivastava (E) Kanter (E) Peters and Waterman (E) Greiner (I) Mintzberg (I) Miles and Randolph (I)	de Geus (E) Senge (E) Strata (E) Garrat (I) Argyris and Schon (E/I)

Table 1. Classification of the literature on organizational learning

The review on the literature on organizational learning described above, has already provided some motives for classifying the studies into 6 categories. Therefore, only two remarks are in order.

Firstly, because learning of top managers is nothing more than individual learning, all studies dealing with organizational learning at the top level are sorted into the individual level dimension.

Secondly, it is necessary to interpret the content of the table with some caution, since this classification of the literature has the drawback of pigeon-holing the various studies on organizational learning thereby neglecting their variability and various insights.

Duncan and Weiss (1979) for instance, focus primarily on the learning process of the dominant coalition. It therefore is somewhat arbitrary to position their study in the bottom left corner of the table. Nevertheless, they emphasize the importance of bottom up flows of information for building organizational knowledge. The same goes

for Jelinek's (1979) study on organizational learning systems. These systems are management tools to act and think flexible on environmental events. More important however, the information which comprise this O.S.T. system is definitely not restricted to the top level.

#### 4 Concluding remarks

The survey presented in this paper initially was directed by the search for studies dealing explicitly with the concept 'organizational learning'. Conducting a survey as such has two important consequences. Firstly, studies are included in which the concept forms the major topic but in respect to the content deal with different perspectives. In fact, this consequence has yielded four different approaches on organizational learning. Secondly, studies are excluded which do not explicitly make use of the concept but do implicitly refer to some kind of organizational learning.

In order to avoid these consequences, an initial definition of the concept is put forward, based on some important themes derived from the various insights. This definition has brought forth two additional approaches, namely the learning behavior of innovative organizations and the learning during the life cycle of organizations. These perspectives revealed that organizational learning can be considered as an externally induced adaptive and/or proactive process as well as a process induced by internally generated motives or logic.

Being aware that this effort has probably made the notion of organizational learning more indistinct, the cited studies have been sorted into three dimensions, namely the level, content and motive of learning. According to the generated definition, organizational learning is related to externally as well as internally motivated organizational generative learning. This categorization of the literature has revealed that half of the cited studies, although explicitly referring to the concept in fact deal with something else.

With this literature survey on organizational learning, the attempt is made to provide a better insight into the concept. We certainly are aware that this effort has not brought us to the end of the debate concerning organizational learning. For instance, the important question which activities lead to learning behavior has not

been dealt with. Without this knowledge it remains difficult to have a firm idea of the concept. In fact, nearly all recent studies finish their ideas with stressing the importance of exploring the territory to gain a better understanding of how to accelerate organizational learning. They thereby stress their point by citing the Fortune magazine:

"the most successful corporation of the 1990's will be something called a learning organization" (Fortune 3 july, pp. 48-62, 1989).

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