

# **NEW ROLES FOR HRD-OFFICERS AND -MANAGERS IN LEARNING ORGANISATIONS**

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## **Abstract**

Learning in organisations occurs at three levels: individual, group and organisational levels. The collective learning of organisations refers to the acquisition, distribution, interpretation, storage and retrieval of information by organisations through information-feedback systems. Learning organisations are organisations that strive to change continuously and to interrelate the three kinds of learning in order to satisfy existing and future customer needs. The characteristics of such learning organisations at the three levels are reviewed and placed in a model. Moreover, twelve kinds of individual learning and learning abilities are described that should occur and be aligned in a learning organisation. Moreover, new roles can be constructed for HRD-officers in organisations that aim to become a learning organisation. These new roles are described. Finally, a training program is described for HRD-officers and - managers who want to prepare themselves for these new roles.

## **1. INTRODUCTION**

In studying learning in organisations, one soon discovers that there are three levels of learning: individual learning, group learning and organisational learning. Traditionally, educational psychologists focused on individual learning and organisational psychologists tended to study organisational (and group) learning. The two can not, however, exist without each other. There is no organisational learning without individual learning and individual learning needs organisational assistance and context to be effective. Some organisations, considering themselves to be travelling towards a kind of learning organisation stress the organisational learning. Others focus on team learning and still others on individual learning. It is the combination and coordination of the three kinds of learning however, that makes an organisation a learning one, ultimately. In the concept of learning organisations this combination of perspectives, so we believe, is a key success factor. This combination of perspectives can and should in our view be monitored and stimulated by HRD-employees, who need for that reason new kinds of skills and attitudes.

## **2. ORGANISATIONAL LEARNING**

### **2.1 Can organisations learn?**

Can organisations learn or are individuals the only ones able to learn? Of course the answer to this depends on the definition of learning. Learning is often defined as relative permanent changes in behaviour or behavioral dispositions that can be attributed to learning activities and / or processes (Boekaerts and Simons, 1993). In this sense organisations can only learn in a metaphorical sense. They learn when they change their organisational behavior and behavioral dispositions and undertake learning activities. A problem is that organisational learning, though discussed frequently, has not been defined too well. Mostly, writers know better what it is not than what it is or could be. In discussing organisational learning, often

learning disabilities of organisations are reviewed (see Table 1) to illustrate what organisational learning is not.

Table 1: Learning disabilities of organisations

1. Defensive routines
2. Failing to learn from experience
3. Failing to learn from mistakes
4. Problems of management-teams
5. Too strong action-oriented
6. Believing in stability
7. Walls between functions and department
8. Organisational rigidity
9. Bad communication between layers
10. Slow reactions to slow changes (example of frogs)
11. Hands-on management

In the literature, organisational learning is often related to so called single and double loop (organisational) learning. Individual learning is the learning that results from individual behavioral changes, whereas single loop learning results in changes in the organisational rules and procedures. Double loop learning results in changes of the underlying norms. This distinction, however, does not bring a clear description of organisational learning any closer.

## 2.2 The organisational learning cycle

A better solution might be to relate organisational learning to the organisational learning cycle described by Dixon (1992; 1994). She reviewed the literature on organisational learning and presented an overview of five factors contributing to the learning of organisations.

### a. Acquisition of knowledge / information

Organisations, like individuals, acquire new information from the outside world (markets, customers). This means that they have to monitor carefully what is going on outside, what future developments are to be expected and how customers and markets develop and change. Because there is so much information that could be acquired, it is mainly a selection problem: how to select that information that is the most relevant to retain. One important way to deal with information is benchmarking: comparing output data with other companies, both in the same field (competitors) and in other domains. Especially, looking to the possible causes in organisational structures and cultures of differences in success provide valuable information. Dixon warns that powerful filters in organisations tend to prevent that available information gets through. Far more than in individual learning, information is selected before it is interpreted or used. Apart from outside information there is of course also a lot of internal information that has to be collected, selected and used. One important aspect of organisational learning is reflection on information acquired. There is more needed than acquisition. Organisations should take time to think about the possible consequences of the information collected.

### b. Sharing of knowledge / information

The second factor in organisational learning relates to the spread of information. How good are organisations in distributing information over their members? Who gets to see or hear which information? How to reach all employees? It is, however, not only a question of distribution of information, it is also a matter of interpretation. Different people and different groups have various interests that tend to colour the interpretations of information. People construct their own mental models on the basis of the available information and come to very different conclusions. The art of organisational learning consists of ways to listen to these different constructions and to bring them somewhat more together. A certain amount of common interpretation is essential. This can only be reached by open discussion between and comparison of the different interpretations and constructions

#### c. Constructing meaning

The third component of organisational learning focuses on these interpretations.

Organisational learning has to do with the active construction processes of different people and groups within the organisation. Mental models are constructed without much consciousness. If we want them to be more explicit, discussion and reflection are essential activities.

#### d. Organizational memory

Organisations have collective memories. These are located at different places in the organisations: in individuals, in the culture of the organisations (the unwritten rules, habits, myths, stories, etc.), in transformation processes (the way the organisation is proceeding), in the organisational structure and in the work-environment. Organisational memory has both positive and negative influences. As a positive contribution it prevents organisations from making the same errors over and over again. As a negative influence, however, organisational memory may become a powerful preventer of change and learning.

#### e. Retrieval of information

Information stored in the organisational memory may be retrieved in two different ways: automatically and consciously. Automatic retrieval helps the organisation to be efficient and effective, but sometimes it is dangerous, because of its hidden nature. The information that is retrieved automatically remains untested and can prevent learning. Therefore, from time to time conscious retrieval should be organized.

Organisational learning thus seem to resemble individual learning. There are remarkable similarities between individual and organisational learning. The organisational learning cycle, for instance, can be applied to individual learning as well. Individuals also select, elaborate, interpret, store and retrieve (use) information coming from within and from the outside of the individual. Moreover, in our view in both kinds of learning (individual and organisational) four components play a key role: learning (or change) goals, learning (or change) activities, measurement of outcomes and feedback / reward. At both levels of learning there are learning goals (not always explicit, not always at forehand), learning strategies, measurements of learning (not always extensive or formal; sometimes very implicit and informal) and reward and feedback procedures. As will be discussed in the next section, the same kinds of characteristics, cycles and elements also hold for team-learning. We, therefore, propose to have one definition for individual, group and organisational learning. Instead of posing the question whether organisations and teams can learn according to an individual definition of learning, we propose to change our definition of learning in such a way that organisational (and group) learning may be included. We define learning as:

*The undertaking of activities (consciously and unconsciously) by individuals, groups and organisations that results in relative permanent changes in the knowledge, skills and attitudes of individuals, in work processes and in organisational cultures and structures of groups and organisations. In all kinds of learning there are learning goals, learning strategies, measurement of learning and feedback or reward procedures.*

### **2.3 Organisational learning abilities**

From the phases of organisational learning in Dixon's learning cycle organisational learning abilities can be deduced. Those organisations are able to learn that:

- a) select much information from the outside world (market-developments, customer wishes and trends; developments in society; solutions of competing organisations; benchmarking with other not-competing organisations, etc.) and from within the organisations (attitudes of employees; new ideas; solutions of groups within the organisation that can be used by other groups).
- b) select the relevant information from the large amounts of available information (see under a).
- c) have good ways to share and spread information within the organisation to the relevant people.
- d) to organise common interpretations of information and to bring different interpretations of information in agreement
- e) have good procedures for fixing and using stored information and organisational procedures
- f) to retrieve (sub)cultural, tacit, unwritten rules by organising reflection (double loop learning).

## **3. LEARNING ORGANISATIONS**

### **3.1 The need for learning organisations**

Recently, there is a lot of attention for the idea of learning organisations (Bomers, 1989; Senge, 1990; Tjepkema, 1993). There are five different reasons why this is the case (see Table 2). Changes have become the rule and stability is the exception. Thus, organisations should be able to change continuously. Because the environment is changing so quickly, organisations should adapt. Instead of adapting like plants, however, they should adapt like brains. This means that instead of having one long-term organizational strategy, mission or goal, they should become able to deal with change. Organisations that can change quickly will survive. Human resources become the key resources of an organisation. Its human capital is its main asset and it should be used optimally. Especially, it is important that the human capital is expanded continuously. Through learning the human capital can grow. Strategically, this is also important for the position on the labour market. Talented people like to work in an environment providing opportunities for learning. So they will join learning organisations and stay there. Finally, learning organisations take care of group learning. Therefore, there is less risk that know-how disappears when people leave the organisation.

Table 2: Five reasons behind learning organisations

1. Increasing speed of changes
2. Increasing unpredictability of changes
3. The rise of the information society
4. Human capital is major competitive factor
5. Talented people will stay and come

### 3.2 Defining learning organisations

A learning organisation, thus, is an organisation that is able to change quickly. This means that the people forming the organisation are able to change and learn quickly, both collectively and individually. Bomers (1989) defined learning organisations as organisations that aim to extend their learning-ability at all levels and continuously in order to optimize their effectiveness. Other definitions appear in Table 3. In our view Bomers definition is the best of the definitions we found, but not good enough. It focuses too much on learning ability. Learning itself is, in our view, important too. Furthermore, as stated in the introduction, we believe that it is the relation between the three levels that forms the key success factor. Furthermore, in our view, these relations are structured and brought together through a focus on customers (and markets) who can bring the learning interests of groups and individuals in line with the organisational learning. Therefore, we propose as a definition of a learning organisation:

*An organisation that aims to extend and to relate the learning and learning abilities of individuals, groups and the organisation as a whole in order to change continuously at all three levels in the direction of existing and possible wishes and needs of customers.*

Table 3: Some definitions of learning organisations

- Is one that holds up a mirror to itself to repeatedly question why it does things in a certain way, one that continuously probes at its basic assumptions about the way things work in order to improve them. In order to become a L.O., a company must first identify its own learning disabilities.
- A learning organisation is an organisation skilled at creating and transferring knowledge and at modifying its behaviour to reflect new knowledge and insights.
- A firm that aspires to be a learning organisation must teach its employees how to learn and it must reward them for success in learning
- Learning organisations exist where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together.

Three levels of learning ability were discerned: the individual learning ability, the learning ability of groups and the learning ability of the total organisation. These three will be discussed briefly in the next paragraphs. Before that, however, we would like to present a model of a learning organisation (see Figure 1). In this model the three levels of learning are depicted as three feedback-loops with learning- or changegoals, learning- or change-activities, measurement and feedback / rewards. As stated above, the combination and interrelations of the three levels form the core problem for organisations that strive to become a learning one. Alignment of change goals at the three different levels thus is a main problem to be solved. The following principles, so we assume, make this alignment possible. Alignment of goals will result from a clear influence of customer wishes and market developments (the external context) on learning goals at the three levels. There are four sources where goals can come from: from the environment, from individuals, from groups and from management. The ideal is that these sources all point in the same direction. Furthermore, individual goals will fit into group and organisational learning goals when there is a combination of a certain sense of autonomy and freedom to chose ones own goals and clear guidelines at the group and organisational level. It should also be possible that group and organisational goals follow from individual goals, as is an influence of group goals on organisational goals. This means that there is a combination of strict but broad borders / constrictions and as much autonomy as possible within these borders / constrictions.

Measurement of success in learning is very important at all three levels because this makes clear whether the organisation, group and individuals are learning continuously. Besides, it brings the opportunity for benchmarking: comparison of results with other companies, groups and individuals in effectiveness which leads to a search for possible causes of differences in activities and strategies. Based on the measurement improvement of activities becomes a real possibility. Moreover, feedback to goals and activities as well as rewarding of good learning successes becomes possible.

Leadership for learning at all three levels is an important management task, involving the four aspects of a learning process: taking care of alignment of goals and creating clear guidelines with ample room for autonomy; helping to find and design learning activities, organising an objective measurement system and providing feedback and rewards for learning.

Figure 1: a model of a learning organisation

### **3.3 Some characteristics of a learning organisation**

What are the main characteristics of a learning organisation at the organisational level (see also Tjepkema, 1993)?

#### **Culture**

There is a task-culture characterized by an atmosphere of "getting the job done". At all levels people are market- and customer-oriented. Besides, there is a learning culture, consisting of the following:

- readiness to unlearn and to change mental models
- tolerance for mistakes
- experimentation
- openness and objectivity
- time for reflection
- questioning

#### **Norms and values**

The prevailing norms and values are such that the implementation of innovations is facilitated:

- emphasis on shared goals
- allowing autonomy
- belief in action

#### **Work-organisation**

Work is organized around working processes. This means:

- reducing the number of staff-employees; bringing staff in the line.
- less hierarchy; simple organisational structures

#### **Teams as building blocks**

Small, multidimensional teams form the building block of the organisation. Different roles, styles, specialisms are valued and groups are heterogeneous in these respects, so that people can learn from each other and groups can be more than the sum of their parts.

#### **Flexible borders between departments**

There is an atmosphere of cooperation between departments that have flexible walls that can easily be crossed and change when needed.

#### **Empowerment**

Employees are empowered to function within clear guidelines as autonomous as possible and to develop themselves individually as well as collectively. This means decentralisation. There is a clear balance between experimentation and security: without a certain sense of security there can be now experimentation. Experimentation, however, should be possible and valued.

#### **Strategy**

There is a clear organisational strategy that can, however, easily be changed when needed. From the top there comes a clear mission-statement, that, however, leaves enough room for change and influences from below and from the environment. There is a learning approach to strategy formation in the sense that strategies are built and changed continuously and that bottom-up strategy formation is valued.

#### Management styles

Managers are coaches of their employees and have important roles as leaders for learning. They stimulate experimentation and innovation, set concrete examples as learners and are good in creating and designing an organisation. Leadership of learning and change is valued and developed.

#### Information-feedback-systems

There is an extensive information - feedback system that has a good availability of information for all involved. Furthermore, information is spread to all involved without much selection and distortion. Information from below gets through to higher levels.

### **3.4 Team learning**

What are the main characteristics of group learning and group learning abilities? As said before, team learning is an important level in the learning organisation. Team-learning is more than the sum of all individual learning. It is collective learning, resulting in changes in group rules and group norms, or with other words in the group memory. There are team-goals: changes in group functioning where the group is heading to. Also there is feedback on team-learning. Groups are striving to develop collective competence. This means that they are not dependent on the availability of individual members and that they exchange information: when one group member learns he / she tries to exchange that learning with the other members. Group learning has to do with support for individual learning, in the sense that people:

- create opportunities to learn
- stimulate each other to learn
- help each other to integrate learning skills in work
- give each other feedback and rewards for learning
- help and support each other while learning

Team learning also means having and creating good communication between team-members. Mostly, small multi-functional, autonomous teams function in such a way that people learn from each other, taking over and learning each others jobs flexibly.

## 4. INDIVIDUAL LEARNING

### 4.1 Conceptions of individual learning

What can be said about individual learning and individual learning ability? In most discussions of learning organisations (for instance Argyris, 1990; Swierenga and Wierdsma, 1990) the concept of individual learning ability needed in learning organisations remains rather unclear. It has to do with vague terms like "whole brain thinking", "combined rational and intuitive thinking", being able to use all learning styles of Kolb (1984), readiness to tolerate and learn from mistakes, readiness to unlearn old habits, readiness to experiment and innovate, openness for information exchange etc. Furthermore, there is often attention for the distinction between single-loop-learning and double-loop-learning, mentioned above. These terms were originally meant for use in organisational learning where they have been defined in relation to kinds of organisational change. Later on, however, they became applied to the individual level. Single-loop-learning is learning new skills and knowledge that can be of use in your own work. Double-loop-learning is learning something more at the same time. It is innovative learning, higher order learning, learning for the organisation and learning about work-organisation. It is learning to do right things instead of doing the things right. It has to do with drawing consequences for your work and that others out of learning experiences. Although this idea of double-loop-learning is appealing intuitively, its practical operationalisation at the individual level remains obscure.

Recently, Senge (1990) proposed five characteristics of individual learning ability for learning organisations: The fifth one is the most fundamental because it underlies all the others. Therefore he called his book "The fifth discipline".

1. Personal mastery: Employees should have a goal-directedness in their work and life and should be ready to learn and develop (as a professional).
2. Shared vision: employees should be able and ready to share the organisational vision. They should be and feel involved in organisational goal(s) subscribed by all.
3. Team learning: employees should be able to learn in teams and as teams.
4. Mental models: people should be able and ready to make unspoken assumptions and norms public and available for others.
5. System thinking: people should be able and ready to think in wholes and in relations by reflecting on the system and all its subsystems. When learning and thinking they should consider the consequences for the whole system.

### 4.2 Dimensions describing individual learning in organisations

Most of the time individual learning is described in terms of dichotomies: distinctions between two different kinds of learning. A first distinction is the difference between learning on the job and learning off the job (Marsick, 1987). On the job learning refers to learning in the context of work. Off the job learning is all learning outside of the direct work-context (for instance at home, at a conference, in a course, in a car, etc.). One important obscurity is that it is often unclear whether on the job learning is confined to learning that is really taking place at the work place during working, or that other kinds of learning are included as well. For instance learning after working hours at the workplace and learning in a special classroom at the workplace are sometimes included in on the job learning. Another obscurity concerns the distinction that is made between learning on the job and training on the job (Kruijd, 1991). Training on the job is reserved for preplanned learning activities on the job. Learning on the job is the rest of the autonomous learning that is taking place in and during working hours. Kruijd (1991) proposes to exclude learning on the job from the discussion because it cannot

be planned and organized. Because of the growing interest in learning organisations, however, attention for these kinds of learning on the job increased. De Jong (1991), therefore, proposed a further distinction within the category of on the job training (or learning): workplace-instruction, workplace-practice, workplace-development and workplace study. Workplace-instruction occurs when a supervisor or manager instructs on the basis of a task-analysis. Workplace-practice is the old apprenticeship system. A supervisor is there when needed. The learner gets the chance to execute working tasks when he is ready for them. Therefore, tasks are arranged according to complexity by the supervisor. Work-place study refers to learning by workers in higher positions who can work independently and undertake learning activities on their own in the context of exploring work-situations and -problems. Workplace-development refers to forms of learning on the job that occur in the context of open tasks, where a worker has to analyze, find new paths and procedures. It is learning through action or innovation.

Van der Zee (1991) made a distinction between four kinds of work-place learning: guided learning, self-guided learning, hidden learning and spontaneous learning. Guided learning is learning regulated by a pedagogical authority or a chief (comparable to formal learning). Self-guided learning is learning that is regulated by learners themselves. Hidden learning is learning that occurs in the shadow of guided learning that was not intended (incidental learning during guided learning). Spontaneous learning is incidental learning in work-settings, where learning is a side-effect of working, rather than the result of explicit learning goals or learning activities. These distinctions resemble the distinctions made by De Jong (1991), but they focus more explicitly on who is controlling the learning.

It may be clear that in this way the distinction between on the job and off the job is blurred still more. Are all kinds of workplace study taking place on the job? Is work-place instruction really taking place during working hours and on the workplace or are other kinds of instruction included too? Furthermore, the category of off the job learning is a container of all kinds of learning taking place in schools and conference centers, in cars, at home and in open learning centers, having as much in common as they have differences.

A second distinction, that resembles the previous one, is between learning in school and outside of school (Resnick, 1989). Learning in schools differs from learning outside of school with respect to the following four aspects:

- \* It is symbol-oriented instead of tool-oriented.
- \* It is decontextualized instead of context-bound.
- \* It is individual instead of group learning
- \* It is general instead of situation-specific learning.

A problem with this distinction between in- and outside of school-learning is that it confuses the most probable situations with possible situations. Resnick herself admits that many learning situations outside of schools, like job-instruction, became school-like. Many situations of on the job training are remarkable similar to school-situations. Furthermore, the fact that many school situations stressed decontextualized, individual, symbol-oriented learning without tools should not make us conclude that this is the only possibility. In reality, recent changes in schools aiming, for instance, for cognitive apprenticeship approaches show that other kinds of schools are also feasible.

A third distinction, that solves some of the problems caused by Resnick, is the difference between informal and formal learning (Van Onna, 1985). Formal learning is learning organized by some kind of pedagogical authority, like a teacher, trainer or work-counsellor or supervisor. Informal learning is learning by people themselves, mostly in the context of work. This distinction is often unjustly confused with the distinctions between on and off the job and between inside and outside of school. Formal learning becomes school learning and informal learning becomes learning on the job. A lot of on the job learning is, however,

formal learning (see workplace instruction and -practice). A lot of school learning can be informal (see below).

The fourth distinction is between intentional and incidental learning (Thijssen, 1988, Kruijd, 1991). Intentional learning is learning heading for prespecified goals. Sometimes these goals are very specific, sometimes they are specified globally only. Incidental learning is learning that occurs automatically without a preplanning or even opposed to the goals that were planned. An example of incidental learning is when a worker learns the culture of an organisation during discussions with colleagues. Recently, the idea of tacit knowledge, presumably originating from incidental learning, attracted a lot of attention from researchers (Myers & Davids, 1992). One problem of the distinction between intentional learning and incidental learning is that it remains unclear who is having the intentions: the learner or the trainer or both. A second problem is that this dimension is often confused with the previous one. Intentional learning is thought to be formal learning and incidental learning is considered to be informal learning. Yet, informal learning can be intentional. This is, for instance, the case when a researcher has the explicit goal to learn from studies done by others. Also, formal learning can be incidental. In the context of learning in schools, for instance, students may learn that a certain subject like math can be interesting.

The fifth distinction is between learner controlled learning and autodidactical learning (Candy, 1991). Learner control is independent learning in the context of a school or course where some pedagogical authority leaves a certain amount of freedom for students to learn with respect to learning goals, learning activities and evaluation procedures. Candy (1991) states that it is not possible nor desirable to give students control over some aspects of learning and determine some others for them. Thus, he claims that it is not possible nor desirable to let the students choose the learning activities, but to determine the learning goals for them. It is an all or none phenomenon. Research on learner control shows that it does not result in better learning performance on the short run. It does result, however, in increased curiosity and critical thinking, in a better quality of the insight reached and it forms a better preparation for later autodidactical learning. Autodidactic learning is learning that is not preplanned or pre-organized. Candy (1991) reviews studies done about autodidactical learning projects. He concludes most adults spend a lot of time learning autodidactically and that there are 5 characteristics of autodidactic learning:

- a) autodidactical learning is not totally self-guided. Much of it is externally regulated, at least partly;
- b) coincidence plays an important role in autodidactical learning;
- c) often problem situations determine the route that learning takes;
- d) autodidactical learning is not recognized as learning by learners. Problems form the context in which learning takes place (unnoticed by the learner). The accent is on problem solving or working and learning is a side-effect.
- e) many autodidactical learning activities take place in the context of cooperation with others.

There are three problems with this distinction. First, in our view, two kinds of autodidactical learning are confused by Candy. One is intentional learning where people strive to reach certain learning goals, both explicit and implicit learning goals. The other is learning that is a side-effect of problem-solving or working (Koper, 1992), where action goals are more important than learning goals. Bereiter and Scardamalia's (1989) distinction between learning as problem solving and learning through problem solving is a similar one. In learning as problem solving people are solving problems and they learn certain skills or knowledge implicitly. In learning through problem solving they are aware of the skills they are developing in the problem solving process. So there is intentional autodidactical learning and incidental autodidactical learning and these two should, in our opinion, be distinguished,

because the way they are controlled is completely different. Secondly, we do not agree with Candy (1991) that learner control is an all-or-none phenomenon. There are good examples of learning environments where students have control over some aspects of learning and teachers have control over the other. Think, for example, of problem oriented learning (Simons, 1989) where teachers define a broad spectrum of learning goals, that is, however, constrained by real-working problems and the evaluation procedures, but students have freedom to specify their personal learning goals and to choose their own learning activities. Similarly, in anchored instruction (cognition and technology group at Vanderbilt, 1991) and in Leittext-systems (Teurlings and Simons, 1992) learners get some freedom in choosing learning goals and learning activities, but their learning is preplanned considerably. In essence, Candy (1991) is somewhat unclear in his treatment of learner control. On the one hand he claims that it is an all-or-none phenomenon, on the other hand he admits that there is no complete learner-control in school-like learning environments, because of the responsibilities and roles of teachers and trainers (which are to control learning of students). Therefore, we hypothesize that learner-control in school situations is always a matter of divided control in school-like situations. Teachers have some control and learners have some control too. Thirdly, this distinction confuses learning on and off the job. Learner controlled learning can take place outside of school situations, for instance on the job where a hierarchical higher person determines part of your learning, but leaves some possibilities open. Autodidactical learning, totally determined by learners themselves, can take place in work-situations, but not in school-like situations. Think, for example, of a professor of physics learning about a new kind of molecules or of a researcher in a department of research and development of a pharmaceutical company.

A sixth distinction is the one between learning and development (De Jong, 1991; Kruijd, 1991; Thijssen, 1992). There is in the literature no clear description of this difference. Boekaerts and Simons (1993) state that learning has taken place when there is a relatively permanent change in behavior and / or behavioral dispositions that can be attributed to learning activities. These changes have some generality and transfer-value. They speak of development when such relatively permanent changes in behavior or behavioral dispositions can not be attributed to learning activities. This solution, however, is hardly satisfactory, but at this moment we see no better solution. Clearly, the difference has some connection to the distinction between intentional and incidental learning. Moreover, it seems reasonable that it has similarities with the difference between inside of schools and work-places versus elsewhere. Also, it has something to do with the difference between short-term learning and long-term learning and between specific and generic learning. One would not be inclined to call a change development when it originated within a short period of time. Finally, there are connections to changes taking place automatically, for instance because of aging (life cycles or phases) and growth or maturation.

### **4.3 Twelve types of learning in organisations**

We propose a more extended categorization of types of learning by combining the categorizations of De Jong (1991) and Van der Zee (1991), that focus on work-place learning, with a categorization of off the job learning (both in school-like situations and elsewhere off the job) (Simons, 1994). Explicitly we make use of the five distinctions described before. These distinctions above overlap considerably, as was shown before. Formal learning is confused with intentional learning. On the job learning is confused with incidental learning, etc. Some of these problems are caused by the fact that we tend to think in dichotomies. Take, for instance the dimension on the job learning versus off the job learning. This distinction is used by people who believe in and are promoting on the job learning. They, therefore, blur all

kinds of learning outside the job into one category, without realising that there are at least two kinds of places outside the workplace where people can learn: in schools and other pedagogical institutions and in places like homes, cars, libraries and open learning centers. Other people, like Resnick, started thinking from school-learning. Then a distinction between inside and outside schools is made, blurring on the job and off the job learning in one category. Therefore a trichotomy is to be preferred. In the same way, the other dimensions should, in our view, be extended also. There is formal learning, informal intentional learning and informal incidental learning. There is learning where a pedagogical authority has intentions, the learner him or herself has intentions and learning without intentions from either of the two. There can be teacher-control, control divided over trainers or teachers and learners (Candy's learner control) and total learner control (Candy's autodidactical learning).

The first dimension (a trichotomy), we propose here, thus combines the first two dimensions in a distinction between in school, on the job and elsewhere. Our second dimension combines the third, fourth and fifth dimensions. Formal learning is considered to be the same as intentional learning, where someone-else determines the learning goals. Furthermore, two kinds of informal learning are discerned: informal-intentional (intentions of the learner) and no intentions or informal-incidental. Although the fifth distinction between learner control and autodidactical learning is somewhat broader than the second and the third, they can be combined into one distinction, when we distinguish four categories: external control, divided control, learner control and problem control. In external control a pedagogical or workplace authority has total control over learning goals, learning activities and testing. In divided control, learners have control over some of these aspects (goals, activities and testing). In learner control learners control all of these three aspects (goals, activities and testing). In problem control, learning is a side effect of working, problem solving or guided learning, without there being any intentions directed at this learning.

This leaves 2 dimensions Simons, (1994) defining twelve types of learning (see Figure 2). The last distinction between learning and development does not come back in our two main dimensions.

This two-dimensional system can be used to illustrate some more characteristics of individual learning and learning ability in learning organisations (see Figure 2). The first dimension (a trichotomy) concerns the place where people can learn: in a course / school, on the job and elsewhere (library, at home, in an open learning center). It is not the place as such that is important, however. It is the kind of authority that can be exerted at these places: pedagogical authority with an explicit responsibility for learning, work-authority with an explicit authority for working and no or just a little responsibility for learning and distant authority where the controlling party is absent in the learning place, but can have some long-distance influence. The second dimension consists of four categories of learning-control: external control, divided control, learner control and problem control. In external control a pedagogical or workplace authority has total control over learning goals, learning activities and testing. In divided control, learners have control over some of these aspects (goals, activities and testing). In learner control learners control all of these three aspects (goals, activities and testing). In problem control, learning is a side effect of working, problem solving or guided learning, without there being any intentions directed at this learning.

Figure 2: twelve kinds of learning (environments)

	formal training in / course	at the workplace / on the job	elsewhere (at home / in library / in open learning center / at conferences
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external control			
divided control			
self-control			
problem control			

## **5.CHANGES IN THE KINDS OF INDIVIDUAL LEARNING TAKING PLACE AND NEEDED IN LEARNING ORGANISATIONS**

The system of twelve variants of learning (environments) can be used to describe some characteristics of learning and learning ability at the individual level. We expect the following changes to be necessary for organisations aiming to become learning organisations, all implying *a shift from teaching and training to learning* (see also Simons, 1993).

a) More workplace learning

People can no longer learn all they have to learn through courses and in schools. There is so much to learn that integrated learning and working becomes a necessity.

b) More learning outside courses and jobs

Employees will be expected to learn at home and in open learning centers.

c) More divided control over learning

People will have to learn in environments where they work and learn together with others who have some say over their learning (cooperative learning) and in situations where trainers and managers define only a part of their learning (for instance the goals or the measurement) and all other components of learning may be chosen autonomously. Here, the same key-assumption holds that was described for working before: people perform best when there is an optimal combination of autonomy within clear borders and constrictions. This means that the rules that determine learning possibilities should be as clear as possible. But within these rules, as much autonomy as possible in making decisions about ones own learning should be allowed and rewarded.

d) More independent learning

Employees will be expected to learn and study on their own, especially in work and outside of work situations.

e) More problem controlled learning

ore and more it becomes clear that people learn easily and are happy with learning situations where they are not aware that they are learning. Learning, then, is a side effect of working and problem solving. This does not mean, however, that these working and problem solving situations will occur automatically. They can also and perhaps should be organized. It seems that opportunities for responsibility and autonomy are two aspects of situations that facilitate problem controlled learning. Furthermore, measures should be taken to ensure that learning remains possible, because task goals tend to get priority and to dominate learning goals.

f) More learning to learn

We need at least three kinds of learning-skills: referring to learning that is totally or partly determined by someone else (formal-learning skills), referring to independent learning planned and controlled by the learner him- or herself (autodidactical learning skill) and

referring to spontaneous learning that is a side effect of working or problem solving (spontaneous learning skills). Some of these skills have been described by Candy (1991) and extended by Van der Hoeven-van Doornum and Simons (1994). Formal learning skills refer to accepting control by others, to deep learning strategies, question-asking, problem solving, reading and information-seeking. Autodidactical learning skills have to do with - rather domain-specific skills of - self-management, personal autonomy in learning, action control, subject matter autonomy, metacognition and motivational skills. Spontaneous learning skills concern reflection, transfer, generalization and openness for possibilities to learn. Similarly, we think that there are three independent kinds of learning readiness: being ready to be educated, being ready to learn on your own and being ready to profit from autonomous learning experiences. In line with Candy (1991) we assume that these learning skills and these type of learning readiness have a rather domain-specific character. Thus, we do not expect - as was done in prior research - that these skills and attitudes are of a general quality nor that they automatically transfer from one domain to another. Further research should make clear how domain-specific these skills and attitudes are and how transfer can occur.

g) Alignment of the different kinds of learning

A major problem for learning organisations will be to bring the different kinds of learning in line with each other. They should ideally strengthen each other instead of opposing. Learning projects can be created consisting of combinations of different kinds of learning. Furthermore, as was discussed above, individual, group and organisational learning should be aligned.

## **6. NEW ROLES FOR HRD-OFFICERS AND -MANAGERS IN LEARNING ORGANISATIONS**

On the one hand the central focus on learning in learning organisations threatens the position of HRD-officers and -managers. There is probably less training and more learning and development. On the other hand, it offers new chances and opportunities. Eight new possible roles of HRD-people are:

1) facilitating individual learning in the 12 different learning environments.

This role consists of helping people in organisations to learn in each of the different kinds of learning environments. For most HRM- and HRD-people this means extending their work from the development and execution of formal training to the support of learning on the job and learning outside of jobs and courses, like in open learning centers. Moreover, it means a shift from external control of learning to the other kinds of control of learning, like in divided control, self-control and problem control. It is a shift from teaching to learning and from learning to development.

2) Training and supporting line managers in their role of coach and steward.

Because learning will take place at the workplace coached by the linemanager, these last people should be supported in helping their employees learn. Teaching line managers to become a coach is more than just teaching them a new role, it means teaching them a new view of management.

3) Integrating learning in new technology and the electronic high way.

Computers and other new media (like CD's; video) have tremendous possibilities for new forms of learning, not only in separate computer assisted instruction and multimedia

approaches, but also integrated in existing software. Since more and more people are working with computers, their learning will take place integrated in their computer-work. Moreover, the electronic highway is expected to bring all kinds of new opportunities for learning and networking.

4) facilitating team learning.

As discussed above, team learning ability is an important part of learning organisations. Few specialists, however, know how to stimulate and support team-learning. A learning team is not only learning collectively, it is also functioning in new ways (for instance different kinds of communication)

5) facilitating organisational learning.

Similarly, also new roles in stimulating, organising and supporting organisational learning will be needed.

6) teaching how to learn at the individual, team and organisational levels.

When more and more people, teams and organisations will be learning, also the need to develop learning abilities will grow. Thus, new roles will be teaching how to learn at these three levels.

7) guarding and nurturing the alignment of the three kinds of learning.

As stated above, the alignment of the different kinds of individual learning and the alignment of individual, group and organisational learning form key features of learning organisations. New roles will develop with respect to these forms of alignment.

8) focusing on long term development of all members of the organisation.

Apart from short term learning, also long term development will become popular. Here HRD and HRM specialists can use and develop tools like learning contracts, assessment methods stressing leaning and development; career guidance tools and personal development plans.

## **7. MANAGEMENT OF LEARNING AND DEVELOPMENT**

A post graduate and post-experience training program that is organised by the author together with Jaap Germans within the Universities of Tilburg and Nijmegen since 1986 is presented. This program, called “management of learning and development” prepares trainers and HRD and HRM-officers and -managers for their new roles in learning organisation. It takes 15 months and it has 12 modules of 3 days (8 sessions per module). In total the normative study-time is 800 hours (thesis, presence at course and independent study included). The final certificate students get is a master -degree: master of learning and development. There is a close cooperation in an international network called Euresform with universities in other European countries (France, Uk, Spain, Ireland, Italy, Germany). The concept of a learning organisation is the central focus of the program as it prepares participants for the 8 new roles described in the previous section. It also functions as a model for the learning of the participants themselves: they are expected to develop in the direction of a real learning group and to develop learning abilities as described before. Some new didactical procedures that have proven to be successful over the years are:

- \* regular integrative reflections: participants discussing the key messages of a lecture or learning activities amongst themselves without interference by the lecturer or process-guide. In these reflective periods also relations with previous modules and advance knowledge are discussed, preventing that students isolate the new information too much.

Furthermore, students discuss what is new in the lectures and learning activities, facilitating in this way generalisation. Some students who tend to believe that there is never anything new discover what others find new. Finally, students discuss the conditions and possibilities of application in practice. Students report that these integrative reflections teach them how to learn effectively.

- \* collective reporting: participants make a group report of all modules, ensuring a kind of collective memory. In this way they have to agree on the essentials and to write better and better readable reports. Several feedback-cycles prove to be necessary before such a report is acceptable.
- \* obligatory intervision groups: all participants are obliged to participate in a small intervision group (3 persons) , where private and job-related problems are discussed as far as they relate to the program. especially, problems in applying the new roles in reality are discussed.
- \* E-mail communication between modules: each students is connected to the internet and a special page on the world wide web forms a collective database for easy communication about homework, literature, the collective report, etc.
- \* active didactical procedures: lecturing periods are confined to one hour as a maximum. At least half of the program consists of working groups, workshops, discussions and other more active forms of participation

The modules of the program are the following:

- a) learning in a performance oriented (learning) organisation
- b) business trends and organisational change
- c) human resources management and human resource development
- d) training for impact
- e) new learning theories
- f) skills and integration
- g) development of human talent in organisations
- h) on becoming a professional and dealing with other professionals
- i) new technology and learning
- j) management of learning and development
- k) final integration seminar
- l) international exchange
- m) thesis

## **8. CONCLUSION**

Organisational learning and individual learning can be defined in similar ways under one definition. Then we need no longer discuss the question whether organisations can learn. A broader definition of learning brings together the concepts of learning and changing and is good for the integration of educational and organisational perspectives. Organisational learning is conceptualized in this contribution as the acquisition, sharing, interpreting, remembering and retrieving of information inside and outside of organisations. Learning organisations are both good in this organisational learning and in individual and group learning. The alignment of different kinds of individual learning mutually and of individual, group and organisational learning form the key-problems learning organisations are trying to solve. The model of learning organisations presented in Figure 1 and the overview of different kinds of learning and learning abilities (Figure 2) may help them to solve these

problems. New roles of HRD-officers and -managers are needed in organisations on their way to become learning organisations.

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