Creating Strategic Value through the Language of Learning

Building a transparent Learning Architecture

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In recent years, we have gained a tremendously amount of insight in learning and development and ways to organize it. There is no longer one problem and one intervention and we are no longer limited to bridging a knowledge gap. By learning and development interventions we contribute to innovation, personal and organizational growth and change. We now have a wealth of different forms and interventions; on as well as off the workplace, informal learning, communities, action learning, learning projects etcetera.

But recent economical tides bring us a new challenge by putting pressure on choices organizations make regarding investment. Day-to-day practice shows that investment in learning and development doesn't come naturally. HRD budgets are cut and HRD-departments are pressured to show Return on Investment (ROI). The repeating ROI-question points to insecurity and doubt: is the chosen road, the best one?

We have been able to build a logical case on why it is important to invest in learning and development. But in elaborating and differentiating in learning and development interventions, we have created a new need. That is: to find the appropriate learning intervention. We have to turn the building of learning architecture (making combinations of learning interventions) into a profession. To build a transparent and well-founded case for the choices we make, in order to reach the goals that are set.

The need for a Language of Learning
So, what we have is many different questions, a growing amount of interventions and an overall agreement that people learn in many different ways. But our present communication and design practice isn't set up for this complexity.
When a 'learning and development question' is posed, there are many different interventions possible in response. Every individual manager or HRD-professional will end up with his own proposition. The ways in which they differ can seldom be explained beyond individual belief systems. And, more importantly, the satisfaction and effectiveness differ widely among participants.

In order to make logical connections and choices, we need a language of learning. A language to characterize forms, results and ways of learning and to have an understandable conversation about learning between manager, HRD-professional and employee. A language to bridge the complexity.

Building a Learning Architecture
We propose a language of learning to help communicating effectively about learning among managers, HRD-professionals and employees. And to help

building a learning architecture that is transparent and well-founded, logically combining learning profiles – different ways of learning – and effective interventions.

This learning architecture should take into account individual differences in learning and development on the one hand and organizational direction on the other hand. Where the organizational direction will lead to choices in and coherence of different orientations on learning and development, the individual perspective will lead to the more detailed definition of specific measures or learning activities.

We will argue that the following questions will help to determine the transparency and well-foundedness of a learning architecture:
1. How are the *results* of learning and development defined?
2. In what way are content and *orientation* aligned to the strategic agenda?
3. How does the chosen design take into account the differences in learning?
4. How dynamic and flexible is the learning architecture?

In this paper we build on the research, growing insights and our experience with the 'language of learning' during recent years.

1 Context: Doubts about the strategic value of learning and development

An organisation wants to make a trip to Disneyland. The question is how to get there. To figure this out, some questions that need to be answered are: how many people are going along, how do they prefer to travel, do we want tot get there in the fastest way, or the cheapest, etc. The choice is made for air travel. The choice is logical and well-founded and for those involved understandable and clear. The trip works out well and probably will not lead to further discussion.

It would be different if the choices were unclear, not all considerations were taken into account and those involved had not been consented. If the trip also has the misfortune not to go smoothly, then surely the question of 'return on investment' would be raised.

The ROI-issue is in our opinion related to the uncertainty and disappointment in regard to the result or execution. Measuring ROI in order to substantiate an activity is in our view reactive. The pro-active approach is to argue the value added on the basis of a logical choice process.

ROI-questions are also asked in regard to educational activities. When we take the question seriously, it actually represents doubt as to whether or not the methods used to achieve development goals are worth the money spent on them. We then must decide: do we want to measure effect or do we want to better substantiate the choices made?

Kirkpatrick (1994) choose the first approach. In this paper we will follow the second approach. We will use the Language of Learning as a method to design learning activities which create strategic value in organisations.

2 Design practice in a historical perspective

The interest in learning and an optimized learning process has a long and extensive scientific tradition, even going back to Greek antiquity. And what does that history teach us? In the following paragraphs we will briefly sketch several themes concerning the organization of learning.

The description is a combination of science and practice and is aimed at distilling 'lessons learned'. For more complete analysis we refer to the works of Visscher-Voerman and Plomp (1998, 2000).

2.1 Design based on content and themes

Designing learning activities as profession began approximately in the 1940's. The focus was then on gaps in knowledge and skills and the leading question was how to fill these gaps as quickly as possible (Bell, 1972).

At this time 'instructional' design developed. As the name suggests, the

emphasis laid on a skilled composition of the instruction. The designers task was to find and analyse the 'problem' and to produce instructions aimed at eliminating the problem. (Herbert A. Simon, 1969; Romiszowski, 1981)
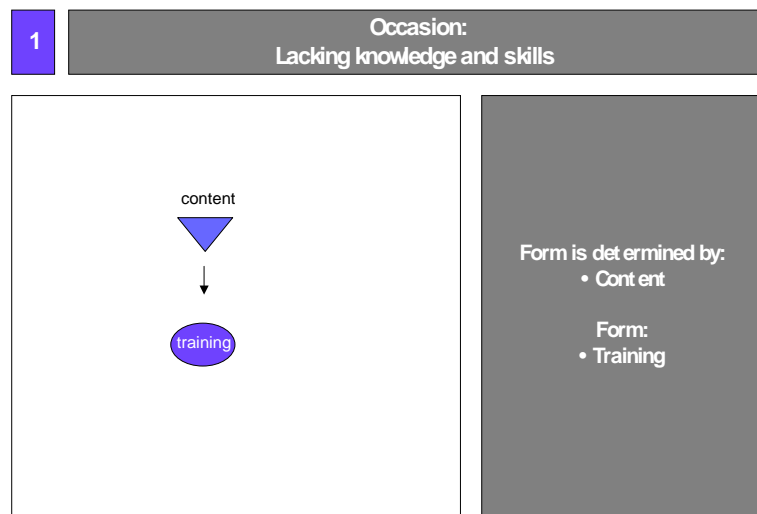

2.2 *Ambition and strategy*

The tension between education and training became sharper in the late 80's and the early 90's. 'Training for activity', as the then ruling method was called, was criticized: the training program itself had become a goal. Up until then 'more' was always better and success was measured by the number of participants and training days.

Roger Bennett (1991) introduced a new series of publications with the conclusion: "T&D specialists are in a new ball game. (…) It is not enough merely to be skilled in the basics of training, we must begin to act like business people and to think in business terms and talk the language of learning (…) We must never let the goals of the company out of our sight." This is a remark which we often still hear.

Precursors in this focus are Robinson and Robinson (1989) with their 'Training for Impact'. In their view, training cannot be seen as a separate function but as an integral part of good conduct of business.

Brinkerhoff and Gill's 'Total Quality training' (1992) goes further by making a link to what they call 'the system'. They also see training as part of good business conduct but stress the connections with other 'subsystems' such as remuneration, selection, promotions, strategic policy etcetera. The reference to strategic goals becomes more explicit in Mike Wills' work (1993) titled:

'Training for Profit'. Training for profit offers a systematic method for reviewing organizational activities so as to distil training needs.
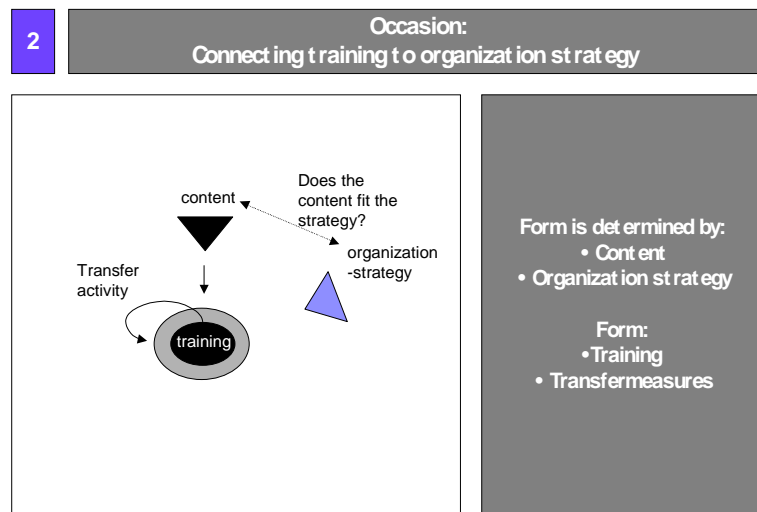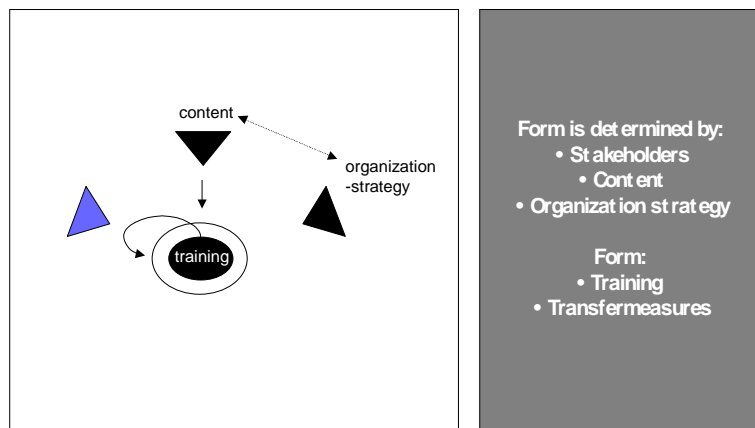

2.3 Stakeholders

Recently we see a new approach to professional design of learning from an organizational perspective (Visscher-Voerman, 2000), launched by Kessels (1996) with the introduction of 'curriculum consistency' and 'internal and external consistency'. This concept came into being out of a need for a logical rational approach on the one hand and the 'subtle interplay of those concerned' on the other hand.
Systematic development models generally result in internal consistency, that is: logical relationships between the analysis of the training needs, the goals of learning, the evaluation criteria, the training activities and the training materials to be used. Internal consistency is therefore primarily the result of a rational design effort.
Then there is the need for external consistency. External consistency refers to 'homogenity of opinions of those concerned regarding the nature of the problem and the manner in which educational interventions can help solve these problems.' It involves the opinions of managers, developers, participants and instructors regarding the problem and the curriculum.

3 Occasion:
Taking into account the stakeholders' interests

content

organization-strategy

training

Form is determined by:
• Stakeholders
• Content
• Organization strategy
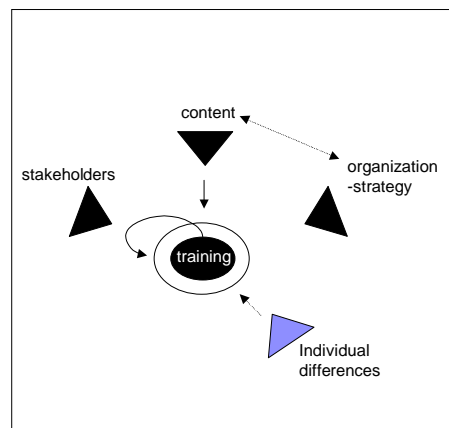
Form:
• Training
• Transfermeasures

2.4 Individual differences

The movement we have discussed in the previous paragraphs is one primarily in the direction of the organization. But where is the individual? While the aversion against training visibly was increasing, Bentley introduced his 'Training for Success' (1990). He pointed out the change from training for skills to training for dealing with change. He introduced 'learning centred design', the focus being on the individual and his/her motivation. Bentley felt that the resistance to training was not being taken seriously. He introduced 'learning need' as counterpart for 'training need'.

4	Occasion: Taking into account individual differences

|	
content stakeholders organization -strategy training Individual differences	**Form is determined by:** • Stakeholders • Learning needs • Content • Organization strategy **Form:** • Training • Transfermeasures

Taking account of individual wishes is relatively common with respect to the *content*. This is much less the case with regard to the *form*. The point of view that individual differences should be given more attention is heard more often (Vermunt, Elen and Lowycks, 1998; Biggs, 2001). James' remark (1989) for example: "I say moreover you make a great, a very great mistake, if you think that psychology, being the sciences of the mind's law, is something from which you can deduce definite programs and scheme's and methods of instruction for immediate classroom use. Teaching must agree with the psychology but need not necessary be the only kind of teaching that would so agree; for many diverse methods of teaching may equally well agree with psychological law."
The most important influence in this field is doubtless that of Kolb (1984) and his work on styles of learning. His learning styles are probably the most universally shared knowledge base for educational and training expertise regarding individual differences.

2.5 Constructivistic design

The design process itself is subject to research and innovation as well. The question raised is whether or not the design process actually is the logical process it is assumed to be (Banathy, 1987; Lowycks, 1999). The first ideas for the design often appear at the start of the process, when the problem is just being sketched and the analysis of the work situation is being made. It is also not uncommon that the design gets fundamentally revised at a later stage as a

result of an 'extra' meeting with the managers concerned.

Constructivistic design is initially more concerned with finding solutions than with analysing the problem (Elen and Lowyck, 1998; Kessels, 2000; Wage-maar and Keursten, 2000).
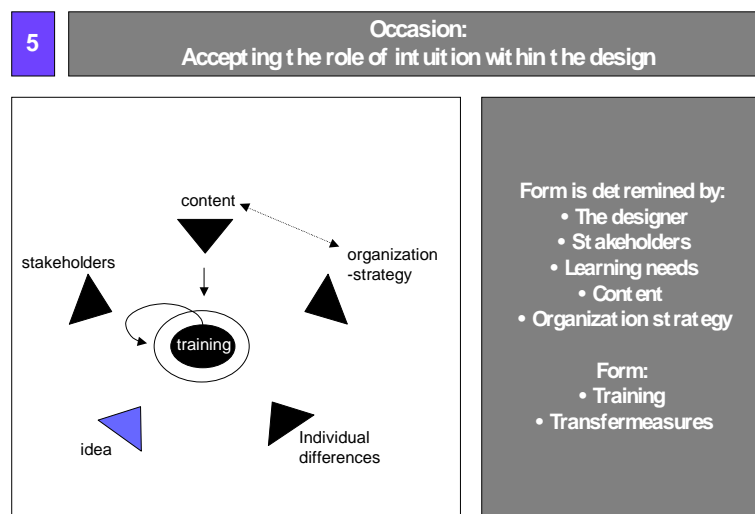

2.6 From training to learning

For a long time learning routines and performing skills through training was leading. As stated earlier, designing training was primarily seen as a precise and systematic process, whereby "reasoning backwards from the desired final product, programmed and tuned step by step" (Lowyck,2001). Society has changed however. Globalization, increasing pressure on the quality of service and modern technology have influenced and changed the way organizations learn and develop. The intensity of knowledge and innovation has also changed (Simons, 2000, Lowyck, 2001). All things considered, it appears to be the shift from acquiring knowledge to the ability to apply knowledge, which has stimulated the development of new forms of learning. This requires learning processes that are more directly related to solutions at the workplace. Not 'learning from' but 'learning to' work becomes the central issue (Bergen-henegouwen, Mooijman and Tillema, 2002; Poell, 2001).

In this new situation we see an increasing diversity in forms and a broadening of the training concept (Elen and Lowyck, 1998; Simons,...) There are new developments, the tone having been set by, for example, action-reflection learning (Marsick and Watkins,1990), informal learning (Kwakman, 1995, Van der Kroght and Warmerdam 1996), project learning, action learning,

communities, etc.
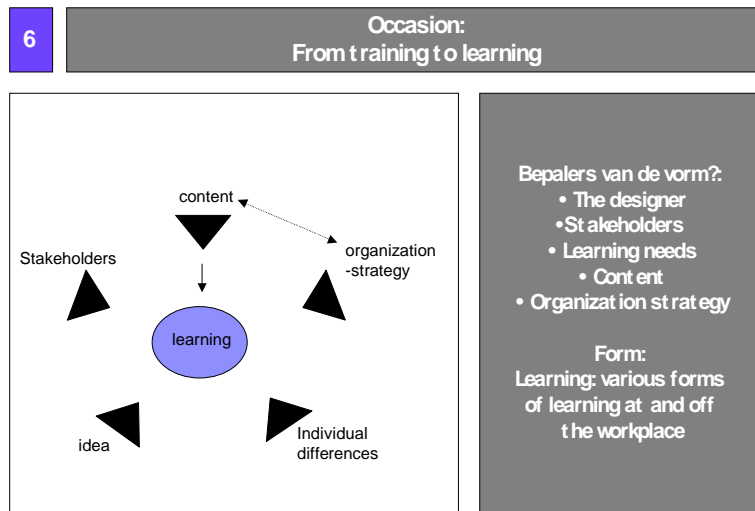
3 Connecting design and strategic value

So, where does this history bring us?
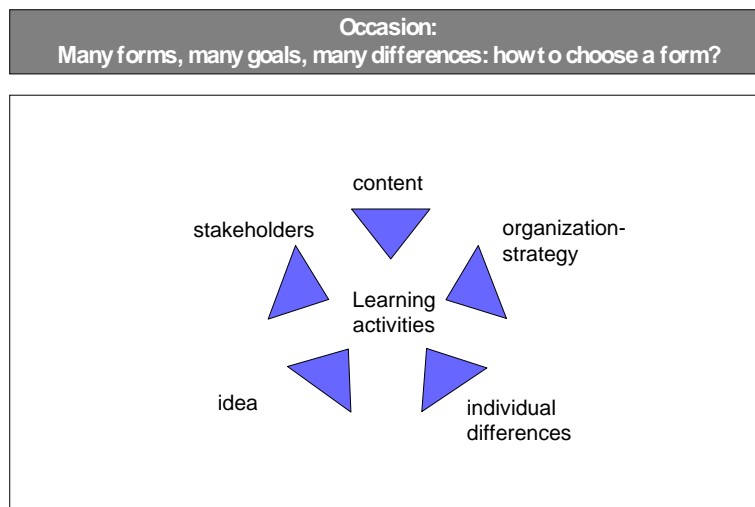
The ROI question is, in our view, caused by disappointment with present

results with learning and development. What is overlooked is that current design habits may be (at least) part of the cause of these disappointing results. In reaching strategic value we have to overcome the following four design shortcomings:

- In the past, learning was primarily defined as a curriculum question, and not as a organizational question. Efforts have been undertaken to link learning and development to organizational goals. However because goals were too often formulated on a level of individual competences instead of strategic results, these efforts have been relatively unsuccessful.
- In addition, choices were made for the learning themes, but no clear choices were made for a 'learning orientation', corresponding to the organizational challenges at hand
- The learning architecture was built only on 'what' had to be learned and developed, without explicitly taking into account differences in 'how' people learn.
- Learning architecture was too often seen as 'static', instead of 'dynamic'. The dynamics of learning architecture require continuous monitoring and improvement.

What we already do	*What the authors propose*
Departure from learning question, determination whether or not this fits in the strategic line	Departure from organizational analysis: context, stakeholders, ambition and strategy. Determine which goals and results are required (broader than skills alone)
Analysis of content and themes	Analysis of learning orientation as well
Analysis of individual learning goals	Analysis of individual learning preferences as well
Design is not linear; developments, co-creation, constructivist design	Design is not linear. Design rules and links are loosely coupled. Because of this and because of the need to deal with continuous change, it is important to keep the design 'open' and to monitor the results.

Table 1 will help to draw the lines between the present and the desired practice more explicitly.

4 Our proposal

In finding solutions to the herefore mentioned design shortcomings, we

present an alternative approach which, in our view, redefines the current view on ROI by placing it in perspective of strategic value of learning and development.

The presentation of this proposal will be broken down into four parts, namely;
- Defining goals and results of learning and development from an organizational perspective
- Translating the goals into learning themes and learning orientation
- Determining and analyzing the learning profiles of employees
- Continuous monitoring and improvement of the learning architecture

4.1 Defining goals and results of learning and development from an organizational perspective

As indicated in paragraph 2, historic as well as current practice is to identify a 'problem' or an 'issue' and to organize learning around it. This quick convergence on 'what' and 'how' is one of the prime reasons why the ROI-question gets asked – and at the same time cannot be answered because strategy and context were not the basis of the choices made.
Our proposal is therefore to invest more in analyzing the organizational perspective at the outset. Divergence in this phase leads to more insight and ultimately to a sharper focus on desired goals and results.
The relevant aspects of organizational perspective can vary from situation to situation, but may include organizational history, experiences (successes and failures), organizational culture, strengths and weaknesses, the internal and external 'realities' etcetera. There are many different models to choose from, for example McKinsey's 7-S model, the purpose being to help us diverge. So identifying learning goals and results in only one of the 'S-es' would perhaps indicate insufficient divergence.
We would suggest that *ambition and strategy, context and stakeholders* should in any case be examined as one of the steps in arriving at a conscious and reasoned learning architecture. Examining the learning history as well as the present case for learning and development in the client organisation provides important information.

4.2 Translating the goals into learning themes and learning orientation

The current state of affairs in the learning- and training profession can be described in terms of the often heard phrases:
- Training is out: learning is in;
- Working to learn and learning at work;
- Learning should be done at the workplace;
- From supply driven to demand driven learning

The typical thought is that our present ways of learning are not delivering what we expect: its got to be different and better. The reaction is the creation of new forms for learning (such as action learning, informal learning, learning projects, open space, etc.).

In the Language of learning we assume that there is no one best way to learn. The diversity in presenting problems in organizations necessitates the use of the broad range of visions, forms and insights in learning which we have gained in recent years.
We propose that the choice for a certain vision or form not be dependent on the most recent hype in the HRD-profession, but rather letting it be dependent on the development needs in relation to the strategic agenda of the organization. A choice for, for example, communities of practice will be made, not because this is a recent development, but because they are suited to the problems at hand. So the question is; when is a form or vision suited? This question implies that there are more goals (other than knowledge acquisition) to be reached by learning and development.

In order to make the choice, we need insight in the available learning orientations. We need a 'map' with different learning forms and goals that can be reached with these forms.
We distinguish the following three orientations:
- practicing: learning while working in day to day practice
- exploring: deepening, broadening, enlarging and renewing knowledge and insights concerning the own profession;
- creating: designing, developing products (tools, plans, policy documents, articles etc) in order to spread professional knowledge.
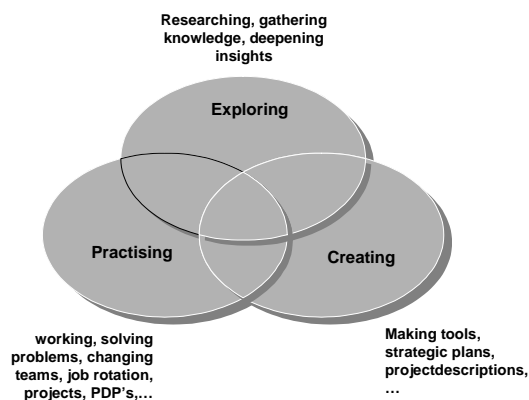
Practicing, exploring en creating will be recognized by every professional as, to a larger or lesser degree, part of their job. In order to make progress, balance is needed between these three, on an individual as well as a group level. The balance needed is in part dependent on the strategic agenda of the organization. Is the primary drive of the organization to *do things well ?* Is innovation important for the organization? Is it necessary to bring in new knowledge and insights due to turbulence in the field? The three orientations are not to be seen individually: they stand in relation to each other. At the point where they share ground, it is possible to intensify and accelerate learning.

The 'shared ground' of the three orientations provide us with three sub orientations (being bridges and reinforcers):
- elaborating on work-competences by learning from and in practice (elaboration)
- expanding theoretical knowledge and insights by learning explicitly from and in research (expansion)
- externalising practical and theoretical insights, which means contributing to the development of the profession and / or to team and organizational learning (externalisation).
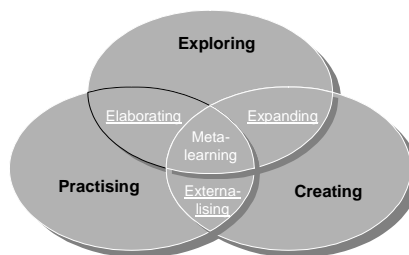
Lastly, the core of this model is formed by 'meta-learning'. With meta-learning we mean being able to steer one's own learning. The capability to improve and direct one's own practicing, exploring and creating. But also the elaborating, expanding and externalizing. This is the third level of learning.

4.3   *Determining and analyzing the learning profiles of employees*

In designing a learning architecture that works, it is crucial to not only determine WHAT the employees need to learn, but also HOW they learn. As noted, the most well-known author on this theme is Kolb. Still the influence of what we refer to as style-thinking is limited. Limited in its effect on the design of learning activities as well as on the steering of the learning and development by those concerned. The learning style inventory and other comparable methods are usually used on the first day of a training, therefore

not having had influence on the design nor on the interventions. Generally the inventories also do not return at a later moment, thus making the influence marginal[1].

Next to these practical limitations, there are, in our view some more theoretical problems with it, to name a few[2]:
- the instrument focuses on individual learning only and has no place for learning in social interactions or collective learning;
- the focus is on implicit learning only, leaving guided and self-directed learning aside, and
- Kolb's abstract conceptualisation would not be seen as a necessary part of the process of learning because it need not be explicit and declarative.

Although there are some variants on the Kolb instrument, such as the ones devised by Honey and Mumford (1982) and Juch (1983), the problems mentioned remain the same. Honey and Mumford, for instance, changed the Kolb approach in the direction of explicit learning, but they forgot about implicit learning (Honey and Mumford, ..)

Other popular approaches to differences in ways of learning focus on learning in educational settings. Examples are the approaches of Vermunt (1992), Entwistle and Ramsden (1983) and Schmeck (1983). Typically, differences in learning refer to deep, meaning oriented, holistic learning versus surface, fact oriented, and serial learning. Besides they distinguish preferences for self-directed and guided learning. These approaches have proven their value in educational settings. They are, in our view however, not very suited for use in work and life-long-learning contexts. Again there is little attention for learning from and with others, and implicit learning is neglected.

The purpose of this part of the language of learning is to focuses on both implicit and explicit learning, on both individual learning and on learning from and with others and on self-directed as well as on guided learning. We made a distinction between the learning preferences and the learning capabilities an individual has. Learning preferences and learning capabilities together form the learning profile of an employee.

Learning preferences
In order to determine and analyse the learning preferences, we have developed a system, containing five contexts of learning. Every individual will have a

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[1] It should be noticed that the Vermunt's LSI (..) does give direction to the design of scientific education. It concerns however the countering of undesired learning styles and not the realization of tailor made programs.

[2] see http://reviewing.co.uk/research/experiential.learning.htm#2

preference for one or a combination of more contexts he or she most effectively learns in. We distinguish the following five preferences:

- **Copying the art**

  Not everyone learns in the same way and not everyone learns under the same conditions. Even the assumption that you can only learn in a peaceful and harmonious atmosphere does not hold true for everyone. Learners who prefer a context of 'copying the art' learn well under pressure. They learn best in a hectic, relatively unpredictable and constantly changing work environment. They look for situations that will teach them something. They often have a talent for spotting an expert in a particular field and learn by example and good observation. They are very interested in tales concerning best practice and what works.
  It is probably obvious that these learners are not exactly keen on situations involving role-play and exercises. They will soon come to regard this as 'childish'. They prefer to learn in the real world (instead of a learning world) where they are challenged to perform and achieve in a complex environment. Part of the challenge here is to avoid mistakes or to turn a disadvantage into an advantage.

- **Participation**

  In the past, learning was often regarded as a solitary process. Increasingly, however, the social side of learning is being emphasized. You learn with and from each other. Knowledge is not an objective concept, everyone has their own interpretation of what it is, but by communicating with others you can arrive at a joint meaning.
  People who prefer a context of 'participation' learn by participating and communicating. Interaction is essential for them. They need the cut and thrust of discussion to sharpen and clarify their ideas. You are forced to explain your thoughts, which, in turn, gives you feedback in the form or reactions and ideas from others. Win-win situations all around.
  Learning is easiest for these learners within a group where the members are interested in and trust each other.
  Support in the form of a team coach, someone who can guide the group process, can be useful. But members dividing tasks within the group themselves and rotating chairmanship are a good alternative.

- **Acquisition**

  Although many trainers and teachers are trying to find ways to bring theory and practice closer together and to escape the restraints of the classical system, there are people who really prefer this way of learning. They attach great importance to the transfer of knowledge and the learning of skills. They often learn well when goals are set and learning processes are defined. They like to be taught by 'experts', teachers who know their subject. After all, knowledge is objective and it is important to gain knowledge in an unsullied environment. Mistakes should

be avoided. Making them is a sign of planning errors, sloppy preparation or inadequate knowledge.

These learners know what they want to learn and target their learning to achieving a concrete result. Regular testing is part of this learning process. After all, knowledge can be measured. Examination results give a clear indication to what extent the result has been achieved.

- **Experimentation**

  Together with 'Acquisition', 'Experimentation' is perhaps the most well known learning context. Time and time again, 'Experimentation' seeks to bring learning closer to the workplace, choosing forms like on-the-job training, work experience and role-play. The greatest concern is whether that what is learned can be applied in practice. For this reason, wherever possible, training is carried out in realistic situations, situations that reflect every-day practice as closely as possible.

  The core of this approach is that it is a 'learning situation'. This means that the environment must feel safe enough to dare making mistakes in. The environment should also be uncluttered enough not to detract learners from their primary goal. Moreover, it must be peaceful enough to allow learners to reflect on what they have learned.

  In short, learning in a context of experimentation requires a peaceful, safe, not too complex, but realistic environment where learners have the freedom to experiment, ask questions and have the opportunity to reflect. Learning can be supervised by someone from the work environment or an experienced teacher. The important thing is to have someone who can simplify situations, point things out or can pass things on that will bring you a step closer to your goal. With him, you can also discuss mistakes, because mistakes contain a wealth of information that help you learn.

- **Discovery**

  Learning in a context of 'Discovery' is based on the premise that life and learning are synonymous. You don't just learn during a course, you are always learning. There is no such thing as not learning. Learning means finding your way through and understanding situations. Being conscious of this, teaches you a great deal about daily life and those unexpected evens that confront us all.

  An important prerequisite is a large degree of freedom. Learners that prefer 'Discovery' like to go their own way. This doesn't necessarily have to be the most efficient path, as long as it's the most interesting one. This learner searches for inspiration and meaning and finds these in his or her environment, friends and the people around him or her etc. Knowledge is what you yourself construct. The discovering learner doesn't really require their learning process to be supervised, but an inspirational 'teacher' or 'supervisor' will be taken seriously. These learners are often recognised by their creative drive and their urge to discover

things for themselves. Initially, they can appear to be chaotic. But mistakes are all part of the game and keep you alert. If something takes too much time and effort you know you have to try another tack.

Learning by ..	Key words
Copying the art	Role models, imitation from best-practice, real-life, pressure
Participation	Dialogue, with others, collaboration, discourse, trust
Acquisition	Objective facts, transmission, knowl-edge, from experts
Experimentation	Critical reflection, safe, experimentation, explicit learning
Discovery	Meaning, deep understanding, inspira-tion, self regulation

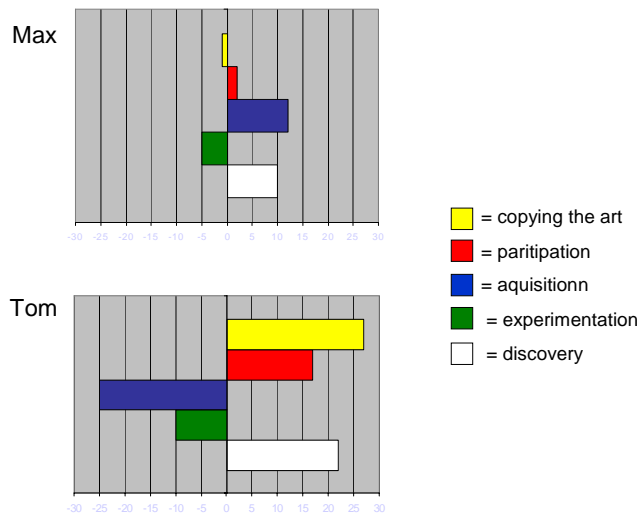Table 2 characterizes these five contexts with some key words

Figure 1 examples of a 'situgram': profiling the learning preferences

Learning capabilities
Where the learning contexts provide information about the preferences individuals have for the conditions they most effectively learn in, the learning capabilities provide information about the way learning takes place 'inside their head'.

In our opinion, learning can be described with the help of three variables:

construction, interaction and reflection:
- construction: does an individual make use of his own (fore)knowledge?
- interaction: does an individual make use of the insights of others?
- reflection: does an individual integrates newly acquired knowledge and insights?

The use of these three variables together determine the effectiveness of the individual learning process will be.
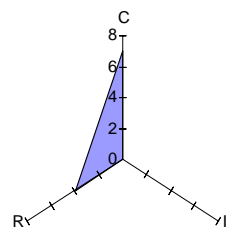
- Case Steven, 35 years
- Points of attention: influencing effectively, delegating, dealing with resistance, balance between enthusiasm and rest/settling down

- Construction: +7
- Interaction: - 4
- Reflection: + 4

figure 2: example of a 'cognigram' profiling the use of construction, interaction and reflection

4.4 *Continuous monitoring and improvement of the learning architecture*

Having determined six systems of influence on choosing the right intervention for a specific purpose and a specific target population (or for 'building a transparent learning architecture'). We also have to put the 'rigidity' of these systems into perspective. We can best type the relations between the systems as: loosely coupled (Weick, jaartal)

The point where we have arrived now is the beginning of new research into new heuristics. But we also have to accept that this implies the need for continuous monitoring and improvement: monitor the realized impact of the learning and development interventions and make adjustments when necessary. In this way, the learning architecture will be a dynamic, 'shock-proof' set of interventions.

5   Conclusions and looking forward to…

We can summarize this way of designing and building a learning architecture in three phases:
- diverging

- converging
- monitoring and improving

The phase of diverging is directed towards exploring ambition and strategic, context and stakeholders. Taking into account inner- and outer world, past, present and future, successes and failures, and physical and mental aspects, other than individual results and goals will be appointed.

The phase of converging is directed towards choosing the most optimal learning intervention, by pre-sorting learning themes and learning orientation. And optimizing the design by analysis of the learning profiles.

The phase of monitoring and improving is directed towards a continuous effectiveness of the architecture by taking into account the individual and organizational learning and development.

Choices in learning
Determinators of the learning architecture
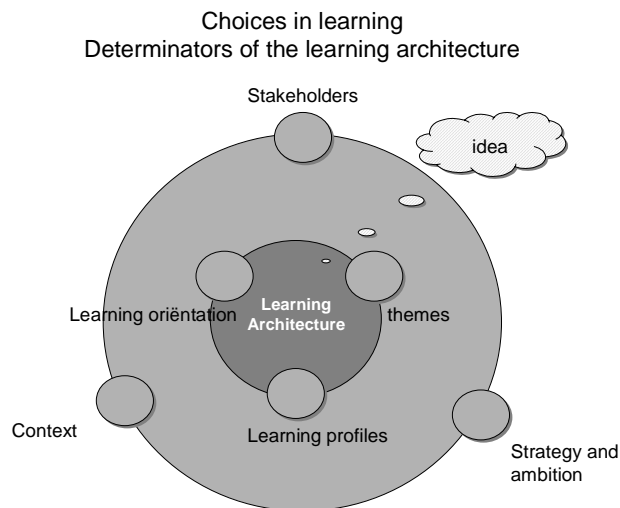
The learning architecture, as designed and built in this way, facilitates 'organizational learning' that creates strategic value for the organization and at the same time takes into account the differing ways people learn and develop. The Language of Learning offers vocabulary to support and facilitates the necessary choices to be made.

Literature

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