

## Chapter

### TEAM LEARNING

#### *Theoretical foundations of team learning-facilitation*

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#### **1. INTRODUCTION**

Team learning is one of the cornerstones for sustainable competitive advantage of organisations. In turbulent environments the capacity to learn, to innovate and to create new knowledge is vital for organisational prosperity. In this chapter concepts like learning, innovating and knowledge creation are regarded to be *social* – and not merely individual - competencies. “Teams, not individuals, are the fundamental learning unit in modern organisations. This is ‘where the rubber meets the road’; unless teams can learn, organisations can learn” (Senge, 1990). This chapter is about the ‘how’ of these social competencies which enable teams and organisations to create new knowledge and new action patterns in dealing with complex dynamic business situations. Extensive research has been done on individual learning and – more recently – on organisational learning and knowledge creation. Far less is known about *team* learning, the ‘middle ground’ between individual and organisational learning. This chapter intends to chart this theoretical middle ground, analysing teams as learning bodies. In the opening paragraph the reader is invited to participate in some small exercises. These exercises help to get a first ‘feeling’ of what team learning is about. After this, basic concepts and ideas on team learning are introduced, drawing a broad picture of the essentials of team learning. The chapter closes with an overview of the implications of this picture for facilitating team learning. How can a facilitator help teams to bring out their learning competencies?

## 2 GETTING A FIRST FEELING OF TEAM LEARNING

What is team learning about? It is my assumption that teams (as collectives) are able to create new images of reality and develop new behavioural patterns. In this sense teams are the 'learning locomotives' of organisations, abandoning old thought- and behavioural patterns, enacting new patterns and enlarging the collective organisational repertoire of knowledge and behavioural strategies. This process of creating new patterns is regarded as a process of collective sense making and of social construction of new meaning (see e.g. Gergen, 1999, Weick, 1979 and 1995). This means that team learning - in my view - is not an equivalent of teams being taught, trained or conditioned. Team learning starts when teams *do* something with the information and impulses they get from their internal and external environments. Sheep don't show the shepherd how much grass they have eaten by reproducing grass. They show it by bringing forth warm wool and fresh milk. The question addressed in this chapter is focussed on the *how* of this transformation process. What do teams do when they are engaged in collective construction processes generating new knowledge and behavioural patterns? To illustrate some basic ideas about team learning I invite you to read the text below (first exercise):

In fact, the procedure is not very complicated.  
First you have to sort out all the materials into separate piles.  
Sometimes it is very well possible that only one pile is enough.  
But that depends on how much there is to do.  
When you want to go somewhere else because you don't have the right facilities, this is the next step to take.  
When your facilities are okay, than you are ready to proceed.  
It is important not to overdo things. It is better to do things sequentially instead of doing all things at the same time.  
In the short term this does not seem to be important.  
But in the long run this may be very expensive!  
In the beginning the whole procedure seems to be rather complex.  
But soon it will become a normal routine into your life.  
It is not easy to predict when there is an end to this activity. But, you never know!  
After the procedure is finished it makes sense to sort the materials into different groups again. This allows you to put them at the right places.  
On a certain moment the materials will be used again,  
after which the whole procedure can be repeated from the beginning.  
Maybe a comforting thought is that this is just a part of everyday life.

My question is: what is going on in your mind when you are 'processing' this text? When I present this exercise to groups most people will say that they, while reading the text search their memory for 'fitting' interpretations. Each time a potential interpretation is brought forward (Is it this?...) and, when it does not seem to fit with the text another interpretation is delved up (..or is it this?..). In a nutshell this exercise illustrates that perception basically is an individual process. It is a constructive act where the individual tries to link an external reality with internal pre-existing images, which are 'stored' its memory. As a consequence making sense out of an ambiguous situation is much more a 'theory-driven' process where the existing content of the individual skull is the defining factor, than a 'data-driven' process, where the configuration of outer stimuli is a driving factor.

This example is characteristic of the thinking style of many theorists and practitioners of organisational learning. Many theories of organisational learning are based on an individualistic view of learning, where individual cognition and changing individual cognitions form the central 'targets' for learning and facilitation efforts (Putnam, 1998). Learning means changing individual mind sets. Put in a context of *team* learning, this would mean that teams as such do not learn. They just form an emotional space and a social context, which either enhances or inhibits *individual* learning processes. By the way: the ambiguous text above is a description of doing your laundry using a washing machine.

Let's go to the next exercise. The picture below shows a staircase. Are you able to see this picture in a different way?

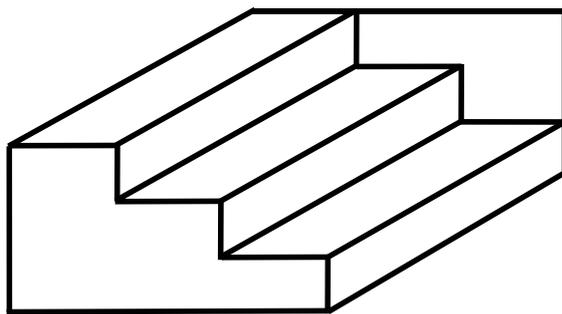


Figure 1 The reversible staircase

In fact the picture can be seen in two different ways. At first glance it appears to be a 'normal' staircase. But what happens when you take the area at the right-upper part of the figure as the foreground? After some trial and error you can see the staircase in a completely different fashion. Looking at it from below, it appears to be a cellar-staircase which you can see standing at the bottom of the cellar. Do you see it? This was a warming-up exercise. The next one is on a more advanced level. What about this picture? There are at least five different ways to interpret this figure! Do you see them?

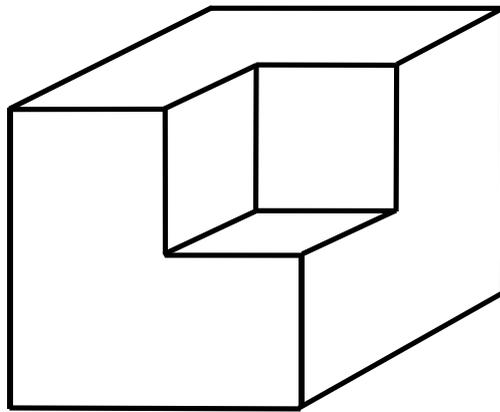


Figure 2 The magic cube

And – once you have discovered them – can you switch from one interpretation to the next one easily? When I show these pictures to groups two reactions can be observed. The first reaction is that, although I don't invite people to do so, they almost immediately start talking to each other, pointing at the picture, trying to explain their understandings of the picture to their neighbours. As a result the room is full of noise and movement and filled with people who either have an 'ah-hah-look' on their face talking to others, or people showing desperate confusion, looking through their eyelashes and listening to those 'who saw it'. The second reaction is one of conservatism. Once people 'see' the picture in a certain way it is quite difficult for them to switch to a different perception of that picture. Somehow their existing perceptions lock them in and fixate them on one possible interpretation.

Generalising from this exercise I would like to draw two conclusions. The first one is that people, confronted with ambiguous stimuli almost immediately 'go social'. Trying to figure out different interpretations of the pictures evokes a collective communication process, where people try to convince each other of their ideas. The construction of meaning is not a process going on *within* individual minds only, but there also seems to be a much more social process going on *between* individual minds. The next conclusion has to do with this 'fixating-tendency' as mentioned before. Once an understanding of a picture is 'achieved' people immediately seem to fall in love with their understandings, defending it from alternative interpretations and blinding themselves for other views of reality. This tendency can be observed both with individuals and with groups.

Now, let me take you to the next exercise. When you read a chapter like this one I safely can assume that you possess a certain degree of intelligence. And, on top of that, there is a reasonable chance that you have taken an intelligence test (IQ-test) to confirm your (undoubtedly high levels of) intelligence. If so, you will possibly remember IQ-test assignments where you have to fill out a missing number. Like: 2 4 6 ... What is the right number to be placed on the dots? Most of you will say '8'! Remember these IQ-test assignments? Here is another one for you: what is the right number to fill in: 16 33 45 ...? Please take some time to calculate your answer before you continue reading.

So what is your answer? 54? 58? 69? 0? 1469,329902? Groups presented with this exercise usually come up with a broad variety of answers. After some extra pushing even more and more answers pop up, filling a flip-over-sheet completely. But what is going on here? A seemingly straightforward problem is able to generate an almost random array of possible answers! What is happening? Let me first tell you that the 'right' solution is seventy-eight. This is the only possible way to solve this calculus problem. Why? Because we are not talking about an IQ-test but about the speeds of a traditional record player! Got you there!

What *really* happened was that I was able to influence your thought patterns and search strategies by introducing the concept of IQ-tests! Apparently only one or two sentences are enough to steer your perception in such a way that only almost random outcomes are the result! Coming back to team learning: to what extent is an individual interpretation a product of the individual or a product of group members, influencing each other, bouncing off ideas, letting up perceptual balloons and negotiating about whose perception is the

'right' perception. It is my contention that this influencing each other's perceptions is the motor of collective sense making and social construction of meaning. Team learning involves social interaction processes where people collectively 'wheel and deal' to arrive at a 'common' understanding (Lazega, 1992). Given the phenomenon that individual perceptions are influenced quite easily and quickly, what would be the consequence of someone staying in a certain team for many *years*? And – even more – what would be the consequence for the *collective* meanings of that team?

To finish, now two smaller exercises. The first one has to do with your being a member of multiple teams. When you 'look' at these teams (please take some time to visualise the most important ones), what do you see with respect to the ways these teams operate, their atmosphere, their energy levels, etc.? Are all these teams (more or less) the same? Or do they differ on certain dimensions?

Putting these questions to groups usually the answer is that people perceive the teams they are participating in as quite different. Every team seems to have its own characteristics. My next question would be: are these differences stable or are they changing continuously? Take a minute to reflect on your 'own' teams. Does their character change a lot? Or do 'your' teams have stable operational patterns? Typically people answering this question react that most of their teams are stable(!). Yet a few people will say that some teams in which they participate are very volatile and dynamic. But then, on a meta-level this volatility and dynamism appears to be a constant and dominant characteristic!

Let's focus on team learning again. Team learning assumes a high mental and behavioural flexibility of teams. As you already saw with the conservatism in the picture-exercises and here again with the questions on the dynamism of your teams, the contrary seems to be the case. Apparently, after a period of wheeling and dealing teams become rather stable focussing themselves on a limited set of action patterns and collective perceptions. This seems to be a natural dynamic of teams, where teams 'zero in' on a limited set of cognitions and behaviours. What would be the consequence of this for facilitating team learning?

And now the last exercise. This exercise invites you to think about 'dips' in your life: periods of depression or frustration, periods of not-knowing, of discovering that many taken for granted certainties and assumptions do not seem to hold anymore and periods of fighting

desperately to get rid of these feelings, - dips. I am interested in the way you got out of these dips. Did you receive 'external' help (like from a counsellor, a family member or from a close friend)? And when you look closely: did these 'outsiders' get you out of your spiralling emotions? Most people who I confront with these questions say they did get help from others. But somehow it was not this help which got them out of their dip. Although all the friendly recommendations, patient and warm nods, hums and hugs do help in a superficial way, time seems to play a vital role here. Only after a certain amount of time has passed (usually when you really feel desperate) suddenly only one little remark or event seems to be enough to lift you up and make you look at your situation from a new and much more pleasant perspective. Who did this? Was it your friend or your counsellor? Or was it you? And if it were you, was it an intentional act or did it just happen?

Back to team learning again. The dips in this exercise could be compared with the mental and behavioural fixations teams end up with after they have worked together for some time. 'Learning' would mean that teams are able to – like the Baron of Münchhausen – pull themselves away from these fixed patterns and choose new perspectives and behaviours. Is this learning of a team facilitated by a facilitator who convinces the team to look at the world from a different perspective? Is facilitation like pushing new meaning into the team or like pulling something out of the team of which it tacitly is already pregnant? And is facilitation a planned change activity (according to a textbook recipe) or an activity where luck and coincidence are involved?

Let me summarise some basic conclusions of the exercises.

- Team learning has to do with changing mindsets and behavioural patterns of a team. It has to do with social reconstruction of meaning *and* behaviour.
- Team learning is not an individualistic cognitive activity. It involves interaction, wheeling and dealing, influencing each other's thoughts. It is a deeply social process, which results in a 'collective' picture of reality.
- Once individuals and teams reach agreement on a certain set of images of reality and behavioural routines it is rather difficult to let these images go and switch to a new set of perceptions.
- Facilitating team learning is not a matter of giving the right advice on the right moment. Inputs from facilitators (and from

a host of other in- and external sources) are 'processed' by the team itself and result in the emergence of new perceptions and behavioural patterns. This process of emergence needs its time. Suddenly it happens. And, alas, alas, sometimes it does not happen at all. Chance seems to play a role here.

### **3 THEORETICAL NOTIONS ABOUT TEAM LEARNING**

In this paragraph I will try to formalise the insights of the previous experiential paragraph. Two central themes are discussed. Firstly I will analyse the dynamics of meaning construction processes. For this I will use the 'collective mind' model of Weick and Roberts (1993) as a theoretical framework. Secondly I will introduce chaos and complexity theory to unravel the different 'phases' or 'states' of team learning. The self-organisation model of Zuijderhoudt (in Zuijderhoudt, Wobben, Ten Have and Busato, 2002) is used here as a theoretical starting point together with some theoretical notions on complexity of Kauffman (1995).

#### **3.1 The process-side of collective sense making**

The collective-mind model of Weick and Roberts (1993) results from an extensive study of collaborative processes on aircraft carriers. When an airplane wants to land on deck an intricate interplay of the actions of many different people is involved: sailors on and below deck, pilots, air traffic controllers, engineers, radar and radio operators, etc., etc. Although physically separated all seem to be 'tuned in' on a collective 'mind-field' (an 'envisioned social system' according to the authors), paying attention to the movements of the airplane and the actions of all the other parties involved. People react on an individual basis, taking this shared field as a collective frame of reference. This whole process of 'minding' is referred to by Weick and Roberts as group intelligence. How does this group intelligence come about?

To explain this Weick and Roberts assume that teams go through several collective 'learning' phases. In each phase the learning dynamics differ from the other ones. Already *before* the team starts to operate the team learning process begins. Once aware that they have to work in a certain team, team members start making assumptions

about the team process, (implicitly) formulate wishes about the co-operation process etc. I will call these assumptions and wishes individual group imagos. Individual group imagos don't say much about the upcoming team experience as such. They are grounded in previous experiences with teamwork (Rentsch, Heffner and Duffy, 1994), other teams in which the individual is participating (Voogt, 1990) and early family experiences (Clarkson, 1991). This means that team members enter the team with a theory-driven (in stead of a data-driven) mind-set. Once the new team starts to operate, typically the actions of the team members seem to be haphazard and uncoordinated. What happens here is that individual team members are enacting their individual group imagos like: 'I am going to be the informal team leader', 'I hope the atmosphere will be very loose and informal', 'I don't want the others to make a fool of me'. During these enactments they watch the behaviours of the other team members closely, checking whether some of these behaviours 'fit' with their own behaviours and individual group imagos. Once a team member experiences that one or more others show behaviours that seem to be consistent with his own behaviours and expectations (e.g. someone else proposes: 'let's make this team a cool team!') the team member experiences this as a validation of his individual group imago. This encourages him to continue his behaviour and to form an informal bond with the other team members. This 'bonding' process results in several 'islands of meaning': little clusters of team members who assume that the other participants in their cluster have the same group imagos as they have and pursue the same goals in the team. The more time the team spends together the larger these clusters become. In the end the team is dominated by a limited number of team member clusters that assume they have the same perceptions of the team reality. In this phase the behaviour of the team members loses all of its explorative and uncoordinated character. In the informal texture of the team a clear and dominant majority of relations and perceptions has emerged and the learning and tentative-like behaviour now becomes a socialisation process. Team members who show behaviours that deviate from the dominant cognitions and behavioural patterns get clear signals that 'this is not the way we do things around here, pal!'.

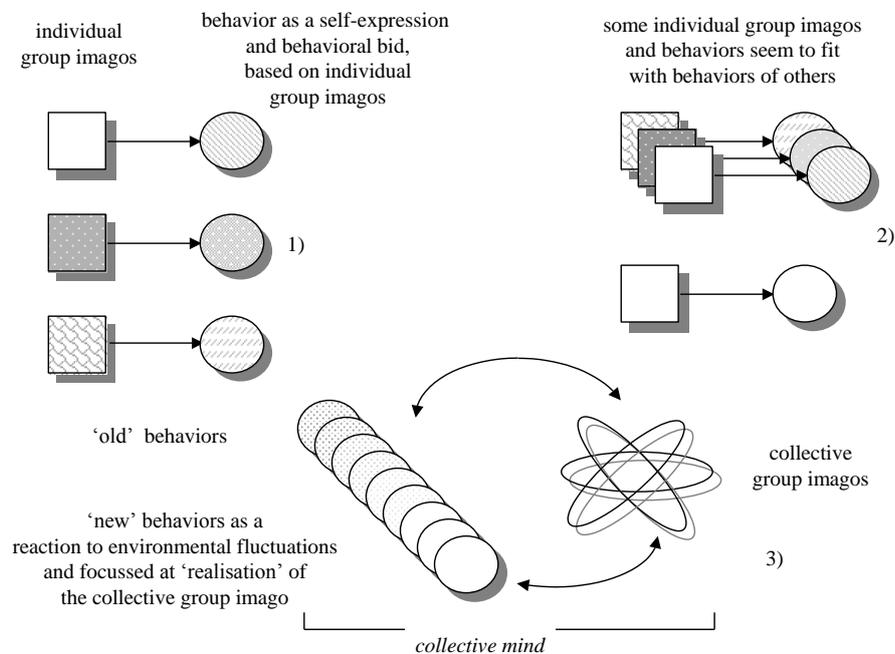


Figure 3 Phases in collective learning and knowledge creation

What this process shows is that team learning processes (as social construction processes of new meaning) roughly appears to have two 'faces'. The first one is a dynamic one: team members experiment with their behaviours, try out ideas, influence each other and – meanwhile – pay close attention to the reactions of their colleagues (Weick and Roberts call this 'heedful interaction'). The team is fluid, it is a container of many possibilities and a space for creating and knowledge development. The second face of team learning has to do with team learning becoming team socialisation. No creative and explorative processes anymore, but coherence and adherence to a set of perceptions and behavioural patterns sustained by a dominant coalition of team members. Now stability in stead of innovation is the norm. Team learning becomes a normative straight jacket. Experiments show that this natural dynamic of teams wanting to find a clear and predictable way of operating sets in very quickly (sometimes it is a matter of minutes, even seconds!). And once set, the existing way of operating becomes an almost perfect predictor of future team behaviour (*ceteris paribus*) (Bettenhausen and Murnigham, 1985). It is

this dynamic which explains why teams, once they have found their 'groove' tend to become essentially stable and rigid, limiting the cognitive and behavioural space of all its members.

In the literature on organisational learning (e.g. Senge, 1990) it is assumed that the latter dynamic impacts mainly on the 'content' mental models of teams. These are the assumptions and routines teams develop with regard to the problems they have to deal with (working domain). I think that this exclusive focus on content is too narrow. In fact teams can become fixated on any dimension of reality and on any polarity of these dimensions. Daft and Weick (1984) on this subject: "People literally wade into an ocean of events that surround ... the team and actively try to make sense of them... They physically act on events attending to some of them, ignoring most of them". Klimoski and Mohammed (1994) refer to multiple group mental models, giving examples of almost any conceivable dimension of teamwork. The picture below presents examples of these dimensions:

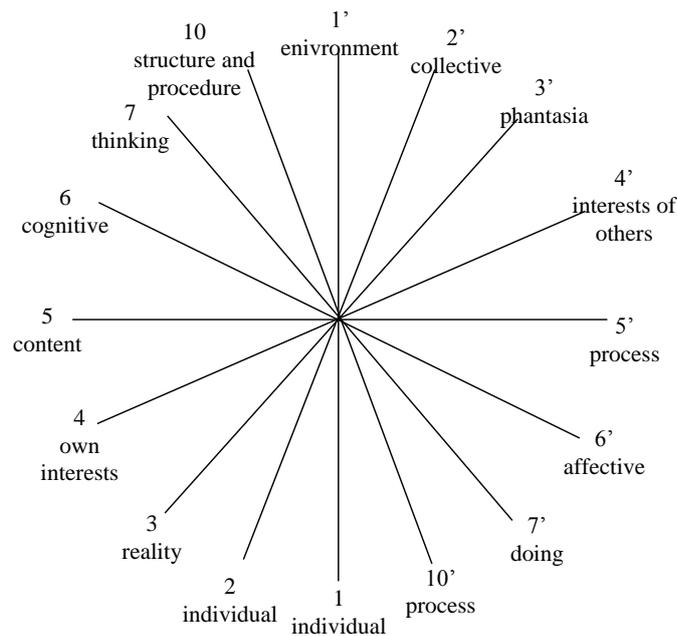


Figure 4 Examples of dimensions of team learning and knowledge creation

I am not so much interested in the specific dimensions shown this picture. Basically what I want to say is that teams, once confronted with an ambiguous and complex situation (a problem, a working assignment, a set of individuals which are unknown, a limited budget, high expectations from upper management, etc.) can only act by reducing the endless variety of possible reality dimensions, 'declaring' some dimensions as 'figure' and the rest of all other possible dimensions as 'ground' (the collective-mind model of Weick and Roberts showing the temporal structuring of this process). The initial equivocality is reduced even further when teams focus their definitions of reality on specific positions on one of the polarities of the 'figure'-dimensions. So some teams spend most of their mental and behavioural energy on the dimension individual-environment (see figure 2), focussing mainly on the environment end of this dimension. And other teams focus most of their energy on the thinking-doing dimension, emphasising the doing-end of this dimension.

What this means is that every team can act more or less coherently because they reduce the team-reality to a limited set of reality-dimensions and polarity-positions ('decomplexation' of reality'). This set is the team's mental and behavioural structure; the team's version of reality and the 'knowledge' produced (constructed) by the team. I will coin this salient set of reality dimensions as the group web of the team. The web-part of this term signifies that the dimensions are interrelated to a certain extent. Meaning that changing one dimension (or the polarity position on that dimension) could bring about a cascade of changes in the other dimensions.

Based on these ideas a whole new perspective on team learning emerges (Homan, 2001). The domain of team learning is not exclusively limited to the content of the working assignment of teams only (like many organisational learning theorists seem to suggest). In fact team learning can involve any dimension of reality, and any polarity of these dimensions. Team learning than can be operationally defined as changing the figure-ground relationship of a potentially limitless set of reality-dimensions, adding new dimensions and switching to new polarities on these dimensions.

### 3.2 Phases and faces of team learning

As shown above team learning processes appear to have two different faces. On the one hand teams seem to operate in a stable fashion, using the group web as a point of reference for their mental and behavioural energy. On the other hand teams (or better team members) can show rather loose, uncoordinated and explorative behaviours. In this state the group web is 'under construction' (or reconstruction as I will conclude later on). Illustrative for these two different faces is the distinction between the words 'Play' and 'Game' (Mead in Voogt, 1990). 'Play' is a social activity where rules emerge and change *during* the playing activities. 'Game' is a social activity where the rules are fixed *before* the game starts. Game-activities remain within the boundaries of these rules (like a game of chess or a sailing regatta). To bring about a deeper understanding of these two faces of team learning chaos and complexity theory can be helpful (e.g. Gleick, 1987 and Wheatley, 1992, Kauffman, 1995).

One of the main thrusts of chaos and complexity theory is that complex systems can show different states, being '(near to) equilibrium', 'far from equilibrium' and 'random chaos' (see Prigogine and Stengers, 1984).

Let's take the example of a pan with water. At low temperatures the water is completely stable (frozen) or quite stable (liquid). In a liquid state hitting the pan will cause some waves. But after a little while these waves die off and the stability is retrieved. Heating up the water at temperatures above 100 degrees (Celsius) will cause the water to start boiling, showing completely random and chaotic behaviour. Interestingly enough there seems to be one other, much less familiar state of the water. At the right conditions (like pressure, etc.) just below 100 degrees Celsius the water shows a so-called Bénard-instability (Gleick, 1987). In this state vertical hexagonal columns appear in the pan. Within these columns warm water moves up and cooler water flows down at the walls of these columns. In this state the water shows both dynamic *and* static characteristics. Furthermore an element of creativity is introduced as whole new patterns emerge which are much more complex than water being in the liquid or frozen state. The symmetry of iciness and liquidity is broken and new patterns emergence. Note that this process is a self-organising process. Now one outside or inside of the water tells the water to do so. This kind of complex order apparently just happens.

In the next section I will describe these states, translating them to *social* complex systems.

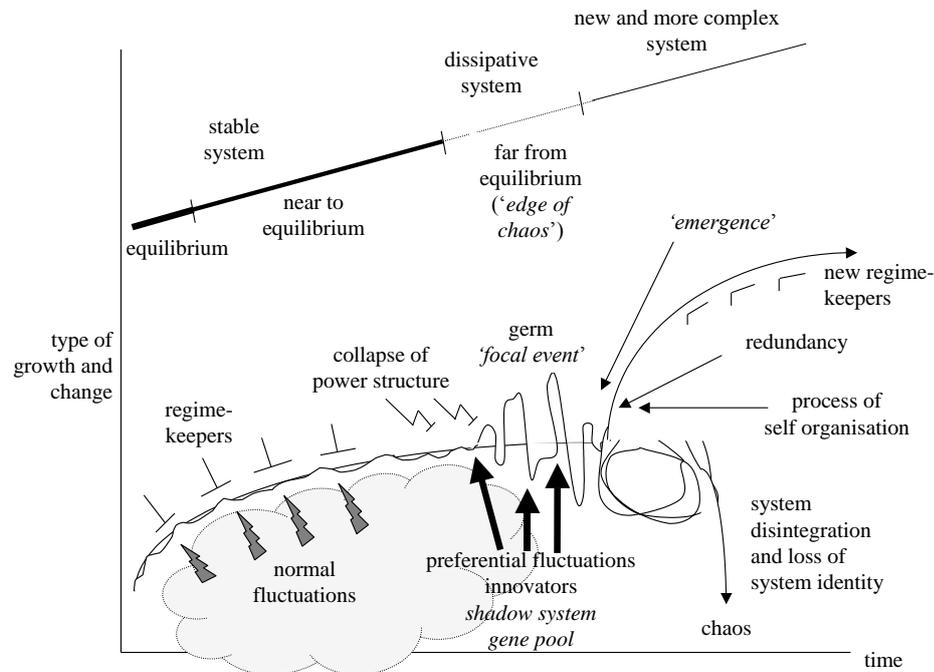


Figure 5 States of complex systems (adapted from Zijderhoudt e.a., 2002)

In the state of (near to) equilibrium social complex systems (and in this chapter: teams) show more or less stable behaviour. The mechanism for maintaining this stability is negative feedback. The group web, which emerges out of the group interaction as described by Weick and Roberts is not an anonymous web. It is 'owned' by a dominant coalition of team members. And each time team members who seem to deviate from the mental and behavioural group 'regime' they are corrected by so called regime keepers. The *combination* of the informal structure, the informal power structure and the group web form a mental and behavioural straight jacket keeping the team stable. Small deviations are possible, but the regime keepers take care that these deviations never threaten the stability of the team as a whole. Funny enough this same mechanism creates the seeds for its own

destruction. As new thoughts and creative behaviours are not allowed to emerge a shadow pool of fluctuations and innovations is built up. Meaning that on a superficial level the team seems to be stable but at the same time at an invisible level the instability increases. Extending the water-metaphor 'heating-up' the team means that new information is brought in which disconfirms the existing group web. Next to this the one-sidedness of the group web becomes more and more explicit as the actual performance of the team decreases. The team is too closed, too inwardly focussed and not oriented enough on its clients and its environment. Pressure builds up, outward and inward criticism grows. Once in this state the team is 'far from equilibrium'. It seems to be stable, but a lot of hidden instability lays just around the corner. Typically only one 'focal event' is enough to tip the system over (like a team member getting ill or higher management signalling that they lost confidence in the team). This focal event is the straw that breaks the camels' back. The existing informal power structure collapses and different kinds of new behaviours and ideas pop up out of the 'gene pool' of suppressed ideas and behaviours built up in the past. In this state two new states are possible. In fact three states are possible. The first one is that the 'old' regime is able to restate its power position. In this case the group falls back into its 'old' and stable state. The second one is the 'complete chaos' scenario. The collapse of the power structure (and with it the disintegration of the group web) is so deep that the group is not able to rebuild a new identity. In this state the team usually disintegrates or ends up in a continuous series of deep conflicts (which is also a kind of stability, by the way). The third team-state is called the dissipative state (see Smith and Gemill, 1994). In this state the team is able to reconstruct itself but on a much higher level of complexity (see the Bénard-instability). New reality-dimensions can be brought forward (see figure 4) and new polarity-positions can be played with. In this dissipative state (the 'transitional state', Winnicott, 1971) playing and experimenting with innovative ideas and new behaviours allows the team to scout reality in a whole new fashion. The behaviour of the team resembles the explorative and uncoordinated behaviour Weick and Roberts observed in new aircraft-carrier-crews. Apparently this kind of behaviour not only emerges when *new* group webs have to come into place but also when 'dissipative' teams reconfigure themselves into new complex social systems. This dissipative state ends when new 'islands of meaning' come about, when new regime keepers find a stable position in the group and when a new group web (new 'knowledge') has emerged. A specific characteristic of this process is its emerging and self-organising character. It is the team itself which 'transfigures' itself

from a caterpillar into a butterfly. The dissipative state merely offers a space for this to happen. Whether it happens or not and what the actual outcomes of the process are is completely up to the team. The team-horse can be *led* to the water, but nobody can *manage* it to drink!

So where are we in our theoretical exploration of team learning? Firstly I described the process-side of team learning. How do teams arrive at (new) group webs? This process can be characterised as a *combination* of behavioural and cognitive ‘strands’. Team learning is not purely a cognitive process (like the individual cognitivist perspective on learning assumes). It involves behaviour, cognition and – as Weick and Robert suggest - heedful interaction. Once teams find their stability this goes hand in hand with the emergence of a group web. This web being a limited selection of reality dimensions including some polarity positions on them. The group-web is not anonymous. It is kept into place by regime keepers, the stability-mechanism being one of negative feedback (socialisation). This same mechanism creates a ‘team shadow’, a hidden pool of deviating ideas and behaviours. Under the right conditions teams can become dissipative, breaking away from the existing group web (including its regime keepers) and experimenting with new dimensions of reality and new polarities on those dimensions. Stability sets in again when new regime keepers and new group webs are (implicitly) accepted by the rest of the team members. As it shows team learning has something to do with changing power dynamics. Without these team learning merely becomes window dressing, keeping stable the core elements of the group web.

#### **4 FACILITATING TEAM LEARNING**

So what does this all mean for facilitating team learning? The first word that pops up in my mind is modesty. It is not the facilitator who changes the team and who ‘directs’ the team learning process. A facilitator can be compared to a midwife. The woman is already pregnant; the baby (latently) is already there. It is the function of the facilitator to (try to) bring about the right conditions for the woman *herself* to give birth to the new baby.

This paragraph on facilitating team learning will not end up with clear lists of recipes, tools and techniques that allow you to become a ‘successful’ facilitator. Rather it uses the theoretical insights from the

previous paragraph and builds upon these to define major *functions* of a team learning facilitator. Given an awareness of the need of these functions, the most fitting tools and techniques can then be applied.

At the outset of team learning trajectories the main function of the facilitator is to *destabilise* the group, trying to bring about a dissipative team-state. Once the group is 'dissipative' what happens is completely open. It can fall back to its old habitus, it can 'explode' into a random chaos or it can develop itself into a whole new configuration, which operates on a much higher level of complexity.

In general destabilising teams (and their group webs and related power structures) involves two sets of activities. The first set has to do with complicating the group web, the second with increasing connectivity. Complicating the group web is done by bringing in (or allowing to surface) all kinds of information about a wide array of reality dimensions and of polarity-positions on these dimensions. This can be new information about the problem that the team is working on, new information about the group process, about the individual team members, about the environmental expectations etc., etc. The basic function of this is that the existing dimensions and polarity-positions of the group web become 'reflexive' (Voogt, 1990). Team members gradually (or suddenly) start realising that their worldviews and behavioural routines are only one specific subset out of many others. The fish starts to discover again what water is. Note that this does not mean that the facilitator tries to convince the team of *one* new perspective on reality (usually the facilitator's own perspective). Through this information process the taken for grantedness of the group web diminishes and the ambiguity increases. It is exactly this condition (heightened ambiguity) which forms the motor for 'organising' (Weick, 1995), for social interaction aimed at reconstructing new sensemakings and for the emergence of new 'knowledge'.

Enhancing connectivity involves increasing the amount (and speed and quality) of the interactions between team members, between the team and its environment and - for team members themselves - bringing them into contact with their deeper personal drives, tacit knowledge and norms. The effects of connectivity enhancing activities are:

- Heightened energy levels. New relationships stir up the energy of the people involved in a relationship ('arousal-effect').

- New information. Getting to know other team members in a different way or getting to know new people outside of the team enlarges the possibility that new perspectives, new dimensions and polarity-positions on these dimensions are brought forward.
- New social configurations. Weick and Roberts' model hints to a more general group dynamic, where people who do not know each other (so there is a certain amount of ambiguity) immediately start group development processes, trying to figure out how to relate to each other (e.g. Tuckman, 1965). This inevitably means that certain dimensions of the group web begin to change or become more important. As a consequence the whole group web becomes less stable, enhancing the chances of dissipative processes.
- Link to the 'zone of resonance'. Processes of self organisation are 'guided' by so called 'attractors'. Attractors are deep, hidden identities of complex systems. All possible system states somehow remain within this 'basin of attraction'. In a social context, teams and individuals possess deep values, norms, self-images and the like, with which all new forms, ideas and behavioural patterns during the dissipative state are 'compared'. When the dissipative state converges toward a new regime a self-referencing and autopoietic process of 'resonance' occurs, where the team somehow 'knows' when certain elements of the potential group web are internally and externally resonant. This is not so much a rational process but rather an intuitive (collective) insight. This collective resonance implies the presence of some minimum degree of sharing of information and values and of enough sentient ties among group members (Smith and Gemill, 1991). By enhancing the connectivity with deeper values, individual norms and motives (e.g. by using visioning-techniques) the team gets in touch with these deeper identity layers and as a consequence develops an above-minimum zone of resonance which can operate as an attractor for dissipative processes. Teams ending up in the random chaos state seem to have lost this zone of reference, which means that the variety of their behaviour is unbounded.

Once the team state starts tending toward dissipation two new functions of facilitators emerge. These are 'stimulating alertness' and

‘regulating the interaction climate’. Together these functions are coined ‘holding the transitional space’.

Team learning is not always a relaxed, painless and joyful enterprise. Once group webs (and related ‘individual webs’) become reflexive this can cause serious feelings of anxiety. “Subjective senses of self in relation to others are the very ‘ground’ of each and of our existences and when this ground is in any significant way disturbed it raises deep anxiety of which we may be only partly aware. Change always threatens some sense of our being and the anxiety that follows will be defended against very tenaciously. The process of change will be halted unless this ... anxiety can be adequately contained. Those who talk in terms of intentional changes in mental models pay little attention to the importance of anxiety in the change process” (Griffin et. al., 1998).

Stimulating alertness has to do with preventing team members to ‘fall back’ on ‘safe’ theory driven attention strategies. This means that team members use old and routine elements of their group web to evaluate the whole complex of incoming new (and usually disconfirming) information. There are several techniques available to help team members to stay ‘open’ and keep using data driven attention strategies to evaluate and react upon incoming new information (see Homan, 2001).

Regulating the interaction climate is the function, which traditionally is associated most with process facilitators. It has to do with bringing about the ‘right’ group dynamics, which allow the team members to experience enough safety to freely explore their thoughts and openly experiment with new behaviours. There is quite a big body of literature available in which the most relevant tools and techniques for this regulating of the interaction climate are described (e.g Schwarz, 1994). Robbins and Finley (2000) present an interesting overview of team situations where teams can go astray. In many instances first some fundamental ‘repair’-activities are needed before the interaction climate is open enough to enhance learning activities of the team and its members.

The essence of these two functions is to keep the team playing and experimenting as long as possible and to prevent the team from falling back on old ideas or from becoming so defensive that it refuses to continue to be creative.

Usually the end of a fruitful dissipative phase is clearly observable and perceptible. The energy level goes down, the amount of new ideas and innovative behaviours decreases and existing ideas are refined and

detailed. It is in this ‘converging’ phase that the function of the facilitator is to re-stabilise the team. This entails the making of clear appointments, a clear work planning, writing down the most important insights, etc.

In the sections above I described ‘monotransitional’ team learning trajectories. The learning path is comparable to Lewin’s well known triad of unfreeze, change, refreeze. When teams have to operate in complex and dynamic environments these monotransitional learning paths could be detrimental. Although they can help teams to reinvent themselves at higher levels of complexity they also *re-stabilise* the teams, risking a long term misfit with their working environments. In these situations ‘multitransitional’ team learning efforts are required (Homan, 2001). Roughly speaking this means that in the converging phase the facilitator stresses that new ideas and behavioural patterns have to be framed as working hypotheses concerning the environment. Team decisions are regarded as experiments, as interventions in a complex and unpredictable world. After some time next steps in the team learning effort involve careful reflection on the results of earlier team decisions and behaviours: ‘how did the environment unfold itself given what we did?’. All the new information generated by the earlier team behaviour is taken as a new set of information-inputs with the function to ‘re-complicate’ and ‘re-destabilise’ the previous group web (compare: action learning).

Through the functions mentioned above team learning facilitators can help teams to become dissipative and stay dissipative as long as is necessary. Through this they create the right spaces in which the team *itself* can do its learning job, abandoning old thought- and behavioural patterns; enacting new patterns and enlarging the collective team and organisational repertoire of knowledge and behavioural strategies.

## **5 SUMMARY AND CONCLUSIONS**

In this chapter the theoretical foundations of team learning and its facilitation are explored. Important elements of this theoretical ‘framework’ are:

- Team learning processes are interaction processes in which individual mental assumptions and behavioural patterns ‘merge’ into a collective pattern called the group web. Experimental and uncoordinated behaviour combined with

heedful interaction are the ‘mechanics’ of these kinds of learning and knowledge construction processes.

- Team learning has different faces. On the one hand the dynamic, creative, experiential and open face (teams being in a dissipative state, then) and on the other hand the closed and stable face, where regime keepers try to prevent the group web from changing fundamentally.
- Group webs entangle a limited set of reality dimensions and polarity-positions on these dimensions. These webs are not limited to the content-side of the group work only. ‘Entangled’ dimensions basically can be any aspect or perspective of reality. This assumption opens the way for a whole new and more generic perspective on team learning, involving the change of figure-ground relationships in the existing dimensions of the group web, adding new or ‘deleting’ old dimensions and changing polarity-positions on these dimensions.
- Changing a group web (‘team learning’, knowledge creation, constructing new sense makings) is a spontaneous team activity. No facilitator can directly make a team change its web. Team learning involves a high-energy state of the team, where existing power structures (regime keepers) are abandoned and where the sluices of the hidden gene pool of new ideas and behaviours are fully open.
- Facilitating team learning is comparable to the work of a midwife. The functions of the facilitator can be derived from the theoretical insights in team learning as sketched above. These functions have to do with enhancing complexity and connectivity, keeping the transitional space and restabilising the team into a new configuration. The selection of tools and techniques used by the facilitator should be based on the intended function that the facilitator wants to execute in order to help and guide the team in its *own* learning and knowledge construction process.
- Designed in this way as ‘structures for emergence’ the results of team learning trajectories and facilitator-interventions are completely open and unpredictable. There are no formulas for definitive facilitator-success. Whether a team starts ‘flying’ and starts playing with new configurations of its group web basically is a matter of luck. I wish all the team learning facilitators a lot of luck.

## REFERENCES

- Bettenhausen, K. en Murnighan, J.K. 'The Emergence of Norms in Competitive Decision-Making Groups', *Administrative Science Quarterly*, 30, 1985: pp. 350-372.
- Clarkson, P. "Group Imago and Stages of Group Development", *Transactional Analysis Journal*, Vol. 21, no.1, January 1991, pp. 36-50.
- Daft, R.L. and Weick, K.E., "Toward a model of organizations as interpretation systems", *Academy of Management Review*, 1984, 9, pp. 284-295.
- Gergen, K.J. *An Invitation to Social Construction*, London: Sage Publications, 1999.
- Gleick, J. *Chaos, the third scientific revolution*, New York: Viking, 1987.
- Griffin, D.; Shaw, P. en Stacey, R. 'Speaking of Complexity in Management Theory and Practice', *Organization*, Volume 5 (3), 1998, pp. 315-339.
- Homan, Th. H. *Team learning, theory and facilitation* (in Dutch), Schoonhoven: Academic Service, 2001.
- Kauffman, S.A. *At home in the universe*, London: Penguin Group, 1995.
- Klimoski, R. en Mohammed, S. 'Team Mental Model: construct or metaphor?', *Journal of Management*, Vol. 20, No. 2, 1994, pp. 403-437.
- Lazega, E. *Micropolitics of knowledge: communication and indirect control in workgroups*, New York: Aldine de Gruyter, 1992.
- Prigogine, I. en Stengers, I. *Order out of chaos*, New York: Bantam Books, 1984.
- Putnam, facilitation and pathways of learning-training, December 1998.
- Rentsch, J.R.; Heffner, T.S. en Duffy, L.T. "What you know is what you get from experience: team experience related to teamwork schemas", *Group and Organization Management*, Vol. 19, No.4, December 1994, pp. 450-474.
- Robbins, H. and Finley, M., *Why teams don't work. What goes wrong and how to make it right*, London: Texere Publishing, 2000.
- Schwarz, R.M., *The skilled facilitator*, San Francisco: Jossey-Bass Inc., Publishers, 1994.
- Senge, P.M. *The Fifth Discipline, the art and practice of the learning organization*. New York: Doubleday / Currency, 1990.

- Smith, C. en Gemmill, G. "Change and the small group: a dissipative structure perspective", *Human Relations*, Vol. 44, No. 7., 1991, pp. 697-716.
- Tuckman, B.W., "Developmental sequence in small groups", *Psychological Bulletin*, 63, 1965, pp. 384-399.
- Voogt, T. *Managing in a plural context* [in Dutch], Delft: Eburon: 1990.
- Weick, K. *The Social Psychology of Organizing*, Reading, Ma.: Addison-Wesley, 1979.
- Weick, K.E. en Roberts, K.H. "Collective Mind in Organizations: Heedful Interrelating on Flight Decks", *Administrative Science Quarterly*, 38, 1993, pp. 357-381.
- Weick, K.E. *Sensemaking in organizations*, California: SAGE Publications, Inc., 1995.
- Wheatley, M. *Leadership and the new science*, San Francisco: Berrett-Koehler Publishers, 1992.
- Winnicott, D.W. *Playing and Reality*, London: Routledge, 1971.
- Zuijderhoudt, R.; Wobben, J.J.; Ten Have, S. and Busato, V. 'The logics of chaos in change processes' [in Dutch], *Holland Management Review*, 2002, pp. 59 –67.