



TOOLBOX



Active Learning and Learning Styles

Training vs Learning

Many people tend to confuse training and learning. In fact, these are two different concepts.

Training is something which is brought to you. Learning is something that you do by yourself. Learning is more important than training. You can train somebody but you need to ensure that he/she has learned something.

- Training (or instruction or teaching) is an institutional or organizational responsibility. A organization decides who should get such or such training. The involved people receive instructions. They are not always consulted. They risk to be passive.
- Learning is an individual responsibility. It is a key element of personal development. Organizations, enterprises, institutions have the duty to support and encourage all their members to learn for a mutual benefit. Successful organizations are *learning organizations* in which learning is an integrated process at each level of activity.

Therefore training should be based on the following principles :

- Every people involved in a training should be encouraged to enter into a personal process of discovery and learning (active learning);
- Trainers should be encouraged to be, first of all, facilitators, i.e. people able to motivate, equip, encourage and guide learners along the whole process of discovery in which there are involved.

Banking Concept of Education versus Active learning

Paulo Freire made a ferocious criticism of education conceived as simple transmission of knowledge. He explained that "*education is suffering from narration sickness*"¹. Inside and outside the school, the dominant teacher-student relationship "*involves a narrating Subject (the teacher) and patient, listening objects (the students)*". [...] "*This is the 'banking' concept of education, in which the scope of action allowed to the students extend only as far as receiving, filing, and storing the deposit*". Paulo Freire proposes to "*abandon the education goals of deposit-making and replace it with the posing of the problems of human beings in their relations with the world.*" He explains that in problem-posing education "*through dialogue, the teacher-of-the-students and the students-of-the-teacher cease to exist and a new term emerges: teacher-student with students-teachers. The teacher is not merely the-one-who-teaches, but one who is himself taught in dialogue with the students, who in turn while being taught also teach. they become jointly responsible for a process in which all grow.*" [...]

"The problem-posing educator constantly re-forms his reflections in the reflection of the students. The students - no longer docile listeners - are now critical co-investigators in dialogue with the teacher."

Knowledge is not something already defined to be transmitted to passive listeners. It is something to be conquered through active exploration and *critical intervention in the reality.*

The learning wheels²

Single loop learning

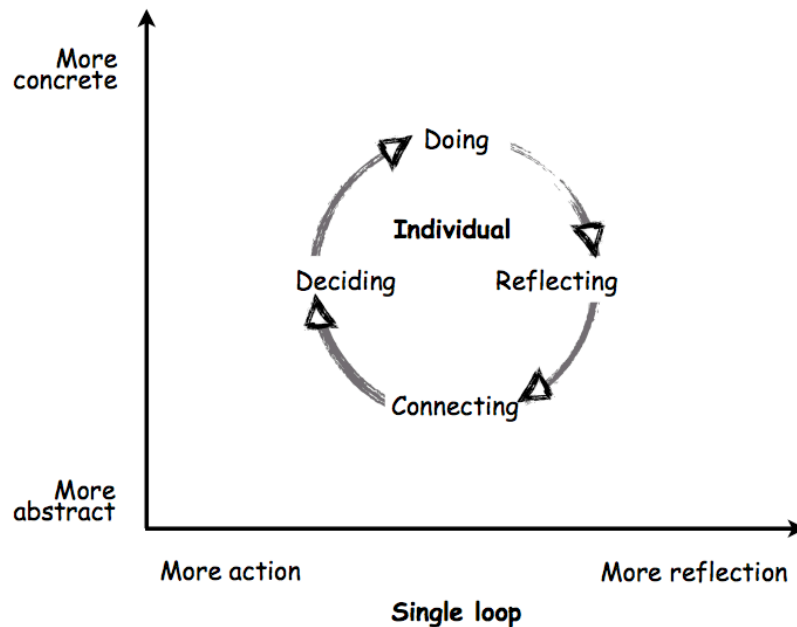
People learn in cycles, moving naturally between action and reflection, between activity and repose. These cycles represent the way we improve what we do. Most of us are somewhat proficient at the individual cycle, sometimes called single loop learning. In any project or initiative, each of us use a *wheel of learning*, which includes four stages :

- **Reflecting** on what we have done, becoming an observer of our own thinking and acting: *How well did it go? What were we thinking and feeling during the process? What underlying beliefs (what 'theory in use') seemed to affect the way we handled it? Do we see our goals differently now?*
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- **Connecting:** Creating ideas and possibilities for action, and rearranging them into new forms, new concepts. In this stage, you look for links between your potential actions and other patterns of behavior in the system around you: *What did our last action suggest might be a fruitful path to follow? What new understandings do we have? Where should we be looking next?*

¹ "Pedagogy of the Oppressed", Paulo Freire, Continuum, 30th Anniversary Edition 2000

² This part is extract from "The Fifth Discipline Fieldbook", Peter M. Senge. Currency, 1994 and "School That Learn", Peter M. Senge. Currency. 2000)

- **Deciding** how to change our next action for the sake of improving our behavior or the rules we follow. 'Deciding' incorporates an element of choice: *Here is the alternative I choose to take and here are the reasons why.*
- **Doing:** Performing a task in a way supported by the three previous stages. When you finish the deed, you move immediately back to the reflecting stage: *How well did it work out?*



The single loop learning has an equivalent at team level :

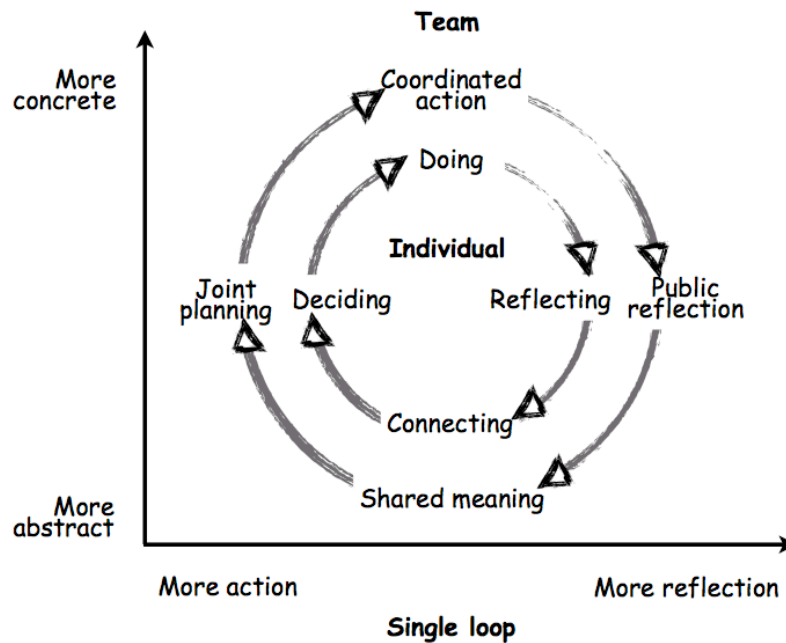
- **Public reflection:** The reflecting stage is public because it takes place over a common table. People talk about their mental models and beliefs, and challenge each other gently but relentlessly.
- **Shared meaning:** As common ground is established, the team can come to a common understanding: *What is it that we know?*
- **Joint planning:** Then comes joint design of an action step: *We are going to do a prototype now. And here's what it will look like.*
- **Coordinated action:** Finally, there is the stage of action, which need not be joint action- it can be carried out independently by various members of the team, who may work in different functions and locations.

Many people think they can skip the public reflection and shared meaning stages, but those are two most crucial stages. If you spend enough time reflecting together to build shared meaning, you will often end up with coordinated action without the need of planning.

As most people do with the individual wheel, most teams tend to "short-circuit" past one or more of the stages. In some organizations, teams continually leap off into new decisions and actions, without reflecting on the tests they have already conducted or considering (in

the "shared meaning" stage) a full range of alternatives. It's as if they were performing experiment after experiment, but never stopping to check the results.

In other organizations, managers say, "I've got to figure this out completely before I make a move." They remain in "connecting" and "deciding", and miss the learning that comes from experimentation (acting), and considering the results.

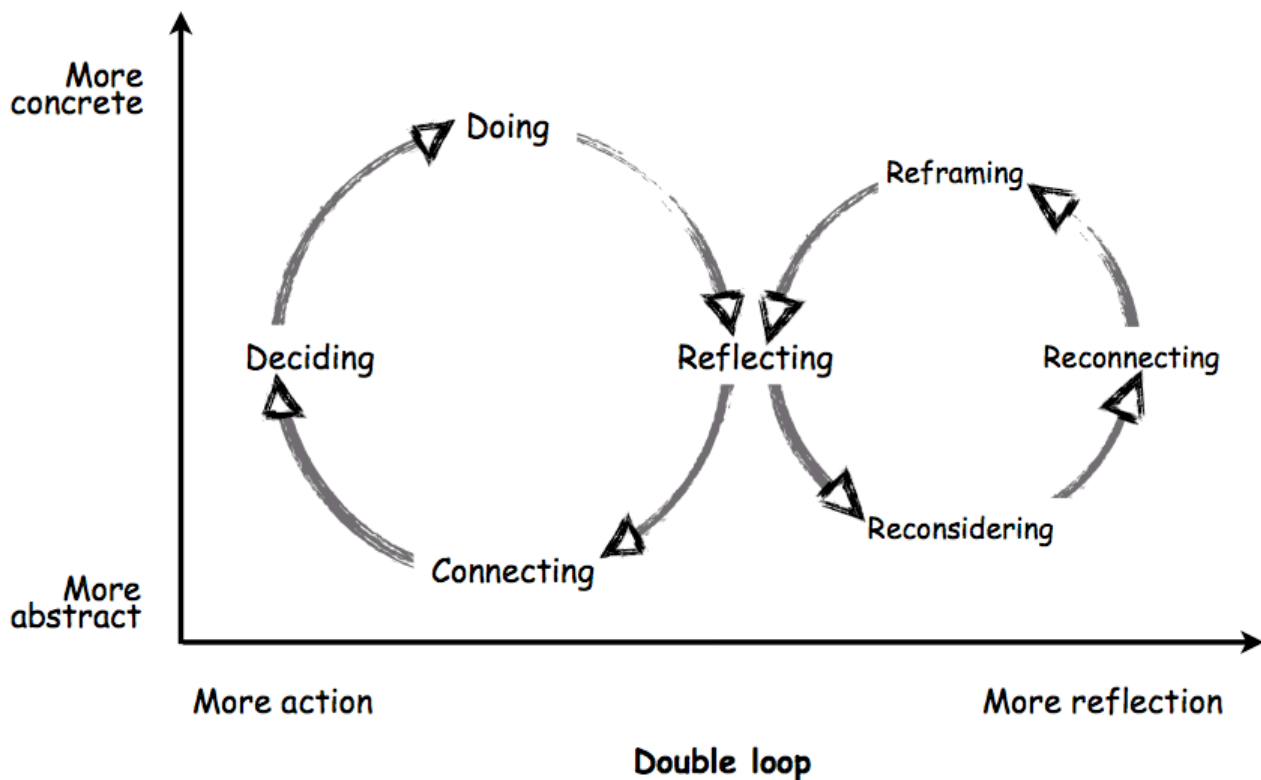


Other people feel comfortable brainstorming and conducting experiments, but never focus their attention on "deciding" on one alternative. Their efforts are scattered and diffuse.

The key role of leaders is to keep the "wheel" moving. This is not an easy task; it requires energy and mental finesse, the ability to hold fast to a sense of purpose, and the willingness to understand mental models of people with learning styles other than your own.

Double loop learning

The single loop learning is effective in simple systems, but it is insufficient in complex systems. A household thermostat is an example of a single system that moves through the single-loop cycle of monitoring the environment for deviation from the set temperature (or norm) and correcting it. A thermostat, though, using this single loop, cannot determine if the present temperature is appropriate for the people in the room and adjust it accordingly. In other words, since the thermostat cannot question the established norm, it cannot change its behavior and *learn to learn* to do its job more effectively. This act requires engaging in a second learning cycle in communication with the first : *the double loop learning* (see the diagram below).



The *double loop learning* incorporates to the 'reflecting' stage a *metareflection* (thinking about the way you think). By this way, we can challenge our own norms, attitudes and assumptions. Organizations rarely engage in double-loop learning. The bureaucracies of many organizations actually impede the learning process. Yet it is this self-questioning ability (double-loop) that enables organizations to learn to learn.

Double-loop reflection contains at least three distinct components that together make up the inquiry about appropriateness :

- **Reconsidering:** from the 'reflecting' stage, a new loop starts by a form of self-questioning which leads us to reconsider our basic assumptions: *Is our approach to this project appropriate? Why do we feel it is the right way to do? What are the collective views of reality (the mental models) that underlies our choices? What will be the consequences of a new approach? What will be the costs of making this change, and is it worth those costs?*
- **Reconnect** to new possible approaches and perspectives from outside our ordinary channels of information: *Who else has tried something like this, using a different approach? What have they tried? How does it differ from our approach? What views of reality might they have that we do not? How did they implement their approach? What other approaches, based on anything we have heard or seen in any field, might be feasible? Are they signals or trends that we should be noticing?*
- **Reframe:** articulate new possible guiding ideas (concepts) and reflect on whether they will expand our capabilities. *How else might we approach our project? Is it the right project, the right goals, and the right objectives? Can we establish a new sense of reality, a new set of mental models, or a new view of our situation? What images might we adopt of our preferred future and the most appropriate values and action for us?*

Individual styles on the learning wheel

David Kolb suggests that most people "take" naturally to one or two stages of the cycle. He proposes then four individual styles of learning:

- A. "**Accommodaters**" - These people are good in managing the process of accommodating the group's theory to reality, implementing the solution, and judging the hypotheses of the experiment against the facts. they are the most willing to dump the theory if the theory doesn't fit, which make them essential. They are the best in the 'coordinated action' stage.
- B. "**Divergent thinkers**" - They excel at problem analysis, they can see things from different perspectives. Every time everybody else tries to close off discussion and move to a solution, they say, Well, there's another way to look at this. They are the best in the 'public reflection' stage.
- C. "**Connection-makers**" - They draw hypotheses and suggest reasons why something happened. They are the most natural system thinkers on the team. They are the best in the 'shared meaning' stage.
- D. "**Convergent thinkers**" - Like the connection-makers, they have a facility for abstraction, but they are also drawn to experiment. They intuitively feel that things should move to a point. They are great at solution analysis and the best in the 'joint planning' phase.

