

“WE CAN'T SOLVE PROBLEMS BY USING THE SAME KIND OF THINKING WE USED WHEN WE CREATED THEM.” ALBERT EINSTEIN

# THE ART OF THINKING

SUMMARY OF AN IN-HOUSE LEARNING CONCEPT TO IMPROVE EXECUTIVES' ABILITY TO DEAL WITH COMPLEXITY AND UNEXPECTED EVENTS

## CHALLENGE

The global financial crisis has uncovered short-comings in our strategic models and conceptual frameworks. Predicting the future or even explaining the present has become more difficult.

Brilliant thinking is the most important and the scarcest resource available in organizations. There are various reasons for this. One is that due to techno-economic progress the issues we confront are more and more complex and thus challenging to grasp. Another is that the skill of thinking is hardly ever taught as such. It is at best a by-product of learning physics, law, economics, history or even philosophy.

Given that complexity is increasing, the pace of change is accelerating and we are moving towards a global knowledge driven economy, it seems that mastering the skill of thinking has become an absolute priority. The success of an organization will be determined by the ability of its managers to deal with complexity and challenges that cannot be solved using existing recipes and models.

## SOLUTION

The art of thinking is a modular learning concept that combines theory and application and is structured around six clusters.

On completion of all clusters participants will have:

- A profoundly deepened understanding of what thinking is and how it works, bringing together the most relevant multi-disciplinary scientific insights regarding the art of thinking.
- The ability to utilize these new insights in practical situations such as the analysis of complex challenges and the development of strategies.
- Practical experience in tackling challenges of strategic relevance.

## CONTENT

### Cluster 1. Evolution and complexity. Why did thinking emerge?

- The first module leads us through the major phases and transitions of evolution with self-organization as its guiding principle.
- The resulting increase in complexity and the pace of change together constitute that challenge to which thinking is the response.

### Cluster 2. Theory of thinking. How does thinking work?

- Thinking involves coordinated activities. Exploring the processes and interactions that constitute thinking helps to improve the quality of our reasoning skills.
- The layered architecture of the human brain reflects the major steps in its evolution. Individual experiences and learning have an impact on all these layers.

### Cluster 3. Strategic thinking. What is strategic thinking?

- Strategy is the application of thinking to complex circumstances to secure competitive advantage. In applying our minds to plan and monitor strategy, we are empowered and constrained by the strengths and limitations of our brains
- The human brain employs a limited number of cognitive operations to address complex issues.
- This module examines strategic processes in the context of brain functions, complexity and change, and introduces tools to improve the quality and efficiency of human outputs.

### Cluster 4. Modelling and tools. Which tools support thinking?

- Human thinking is characterized by two major constraints. The first is our limited capability to process large amounts of quantitative data. The second is the limits of working memory, which can only hold a small number of items simultaneously.
- Models and tools are powerful means to help overcome these limitations, but can also be very misleading.

### Cluster 5. Knowledge metabolism. How to use the results of thinking?

- Knowledge is the “output of thinking”. In an increasingly knowledge-based economy thinking thus becomes the key means of value creation. The efficiency with which individuals and institutions create new and apply existing knowledge will be the basis of competition.
- The appropriate concepts, tools and methodologies as well as the required regulatory frameworks for this new economic paradigm are just beginning to emerge.

### Cluster 6. Typical social contexts. How to deal with conflicts and achieve consensus?

- Thinking occurs in conceptual frames, which are highly influential, though we are often unaware of them. Recognizing this is important for handling many practical situations.
- Specific techniques and skills can help us to address conflicts of interests, achieve consensus, and synthesize divergent insights into a coherent body of knowledge.

## DEVELOPMENT

The first step is to determine your organization's training needs in unison with the exchange of detailed information on the various clusters and how these can be tailored. Depending on the scope of the project this could take the form of a 1-day workshop with learning executives and line management, one or more meetings or conference calls. The modules that make up the clusters will then be further fine tuned possibly incorporating company specific materials. It will also be decided in what stages and in what format the delivery will take place and how its results are to be measured. This learning concept is also suitable for co-development and co-delivery, where your organizations training capabilities can become an integral part of the project.

## MEASUREMENT

The main effect of this training is an improvement in the quality of strategic thinking and decision making by participants when tackling complex challenges that require novel strategic insights. This can be measured by testing participants before and after the course.

## PARMENIDES ACADEMY

Parmenides Academy is a training organization that was set up in cooperation with the Parmenides Foundation: a non-profit organization dedicated to fostering multi-disciplinary research on thinking. The scientific study of thinking requires expertise from a wide range of scientific fields including evolutionary biology and anthropology, neurosciences, developmental and experimental psychology, neuro-informatics, cognitive linguistics, and philosophy. The Parmenides faculty is assembled with the objective to have all of the pertinent disciplines represented by leading scientists in the field.

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