The creative MBA course for smart working

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• Update : 2011.03.03
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Abstract

This paper introduces the creative MBA course, which is a unique TRIZ training program at LG Electronics. We have developed 3-day basic TRIZ training course for employees who have little knowledge in TRIZ. This course consists of three parts: the Mind change, the Brain change, and the Action change. The first letters of these 3 parts (MBA) form the name of the course, which has different meaning with the original word.

As usual in training courses most people have obscure fear and doubt about the feasibility of TRIZ for the first time. Also, most of them think it is very difficult to learn TRIZ and it takes much time to go to the level of applying TRIZ for their own real problems. To encourage the trainees, we focus on giving them a chance to realize the necessity of change and to analyze the problem properly in the mind change part. In this part, they become more open-minded and aware that the psychological inertia is one of the biggest enemies of creative thinking. In the brain change part, the contradiction modeling technique and several idea generation tools are introduced. Most people are so surprised with the fact that they can generate many ideas in a short time, on behalf of 40 invention principles and separation principles. The action change part shows them how to evaluate and shape ideas for application. All the results including idea generation process are arranged in a report and presented just before concluding the course.

In this paper, it is illustrated that our seamless approach can be utilized for training TRIZ and result in good results.

Brief History of TRIZ at LGE

- In 1995, firstly introduced to Korea
  - Invited several Russian masters and specialists including Zinovy Royzen
  - Applied TRIZ to product development and process innovation
  - Developed Korea-first TRIZ application case ; Noise reduction of the air-conditioner
  - Stopped TRIZ activity temporarily in 2003.


クローズアップ
lose-up
韓国のLG電子,TRIZを適用
空調機の騒音問題を解決

<日經 Mechanical April,1998, No. 523 >

- In 2005, reorganized TRIZ team
  - Supported creative problem solving for LGE and LG subsidiary companies (LG Display, LG Chem, LG Life Science, Siltron, etc)
  - Consulting area covers Cost reduction, Process innovation, New product development and Neck-problem solving
- In 2010, started to propagate TRIZ
  - Developed 3-day basic TRIZ training course, creative MBA program
  - Under fostering problem-solving leaders including non-R&D members
  - Started revitalization of TRIZ and its application

Slogan of TRIZ activity

- Developed a common slogan for emphasizing creative idea generation.
- This slogan says TRIZ is an indispensable choice for innovation.

Creative MBA course

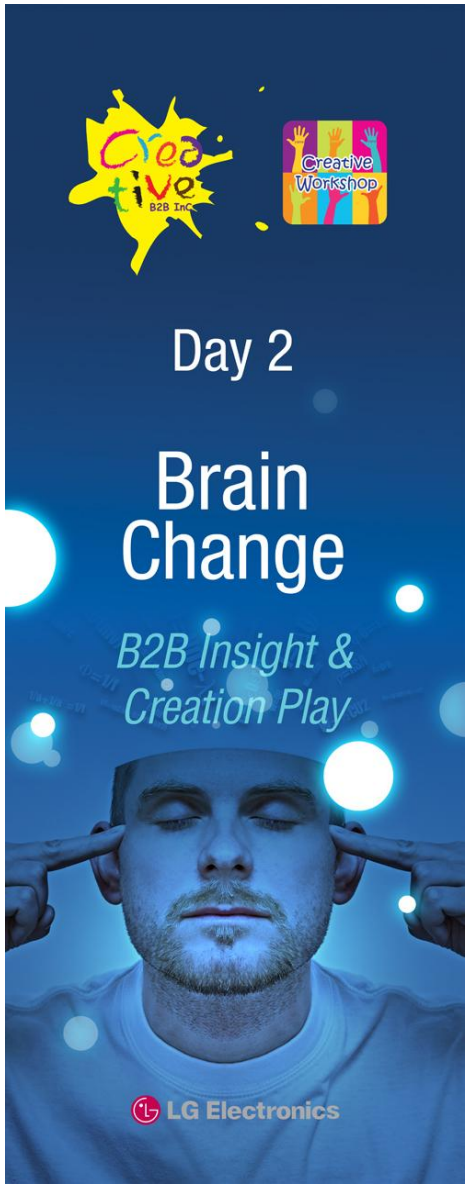
- Unique TRIZ training program at LG Electronics.
- 3-day basic TRIZ training course for employees who have little knowledge in TRIZ.
- Target level : Skillful use of contradiction modeling and invention principles
- Consists of three parts; the Mind change, the Brain change, and the Action change. The first letters of these 3 parts form the name of the course, which has different meaning with the original word, Master of Business Administration
- Trained R&D members for bottleneck problem solving as well as non-R&D members

Day 1 - Mind Change

- Storyline of Day 1
  - As usual in training courses most people have obscure fear and doubt about the feasibility of TRIZ for the first time. Also, most of them think it is very difficult to learn TRIZ and it takes much time to go to the level of applying TRIZ for their own real problems.
  - To encourage the trainees, we focus on giving them a chance to realize the necessity of change and to analyze the problem properly.
  - Trainees become more open-minded and aware that the psychological inertia is one of the biggest enemies of creative thinking.

- Main contents
  - Module 1
    - Team building & Creative Ice-breaking
    - Basic concepts of TRIZ
    - How to overcome the psychological inertia
  - Module 2
    - Problem analysis
    - Resource analysis & function analysis
    - Root-cause analysis
  - Module 3
    - Team project ; Problem analysis

Day 2 – Brain Change

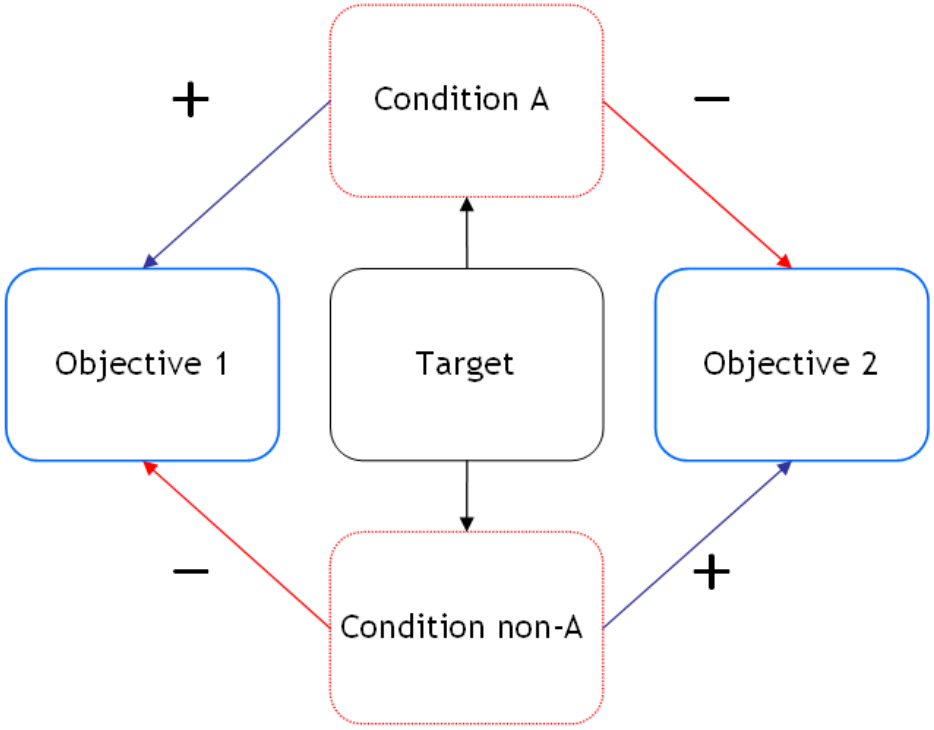


- Storyline of Day 2
  - In the brain change part, the contradiction modeling technique and several idea generation tools are introduced.
  - Most people are so surprised with the fact that they can generate many ideas in a short time, on behalf of 40 invention principles and separation principles.

- Main contents
  - Module 4
    - Contradiction modeling
    - Technical contradiction and physical contradiction
    - Listing Ideal Final Result
  - Module 5
    - 40 Invention principles
    - Separation principles
  - Module 6
    - Team project ; Idea Generation

Day 2 - Brain Change ; Easy Contradiction Modeling

- Developed a contradiction modeling method based on ARIZ
- Easy to learn and apply for any problem



- TC : Technical Contradiction
- PC : Physical Contradiction
- IFR : Ideal Final Result

TC 1	If (Target) is (Condition A), (Objective 1) is improved but (Objective 2) is worsened.
TC 2	If (Target) is (Condition non-A), (Objective 2) is improved but (Objective 1) is worsened.
PC	(Target) should be (Condition A) for (Objective 1) and should be (Condition non-A) for (Objective 2).
IFR 1	Although (Target) is (Condition A), (Objective 2) can be improved. How ?
IFR 2	Although (Target) is (Condition non-A), (Objective 1) can be improved. How ?

Day 3 – Action Change

- Storyline of Day 3
  - The action change part shows them how to evaluate and shape ideas for application.
  - All the results including idea generation process are arranged in a report and presented just before concluding the course.

- Main contents
  - Module 7
    - Introduction of Case studies
    - Idea generation practice for real case problem
  - Module 8
    - Idea evaluation
    - Idea shaping
    - Additional Action plan
  - Module 9
    - Team project ; Final presentation
    - Open discussion

Conclusion

- Our seamless approach can be utilized for training TRIZ and result in good results.
  - ‘Mind change’ is much more important than ‘Brain change’ for overcoming psychological inertia.
  - Easy contradiction modeling helps to find core problems to solve. Based on this modeling, idea generation efficiency can be improved.
  - Through team project, trainees can be used to apply TRIZ for real problem solving even after training course.

- Several cases will be shown on the oral-presentation.