

Workshop Reflective Practice; Critical Thinking

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Abstract

Critical Thinking is one of the core skills for Reflection. In this workshop we first make students aware of their degree of Critical Thinking. Next we provide some means to improve these skills.

Distribution

This article or presentation is written as part of the Gaudí project. The Gaudí project philosophy is to improve by obtaining frequent feedback. Frequent feedback is pursued by an open creation process. This document is published as intermediate or nearly mature version to get feedback. Further distribution is allowed as long as the document remains complete and unchanged.

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draft

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logo

TBD

Colophon

Merete Faanes from Buskerud University College created the educational flow *Reflective Practice*. Reflective Practice is a thread throughout the entire master Systems Engineering to stimulate students to relate *Education and Practice*.

These workshops are the result of the cooperation of Merete Faanes and Gerrit Muller

Read "Multicultural Critical Theory. At B-School?" by Lane Wallace at

<http://www.nytimes.com/2010/01/10/business/10mba.html>

Describe an example in your job where and why critical thinking would help.

Agenda

t welcome, last workshop, introduction this workshop

t+0:10 block 1: Evaluate your most recent course

t+1:20 block 2: Means for Critical Thinking

t+2:30 block 3: Perspective

t+3:40 plenary discussion

t+3:50 pre-assignment next workshop, close

Criticality Assessment Form

rank your level of critical thinking at the beginning, before the workshop

rank your level of critical thinking at the end of the workshop

rank your "desired" level of critical thinking in ~5 years from now

The scale for ranking is from 1 to 5,

where 1 = very low, 2 = low, 3 = medium, 4 = high, 5 = very high

Comments:

Block 1: Evaluate your Course

+ Evaluate your most recent course

What is good

What is not good

> be specific

> give examples

Results on flipover

Block 2: Critical Thinking Means

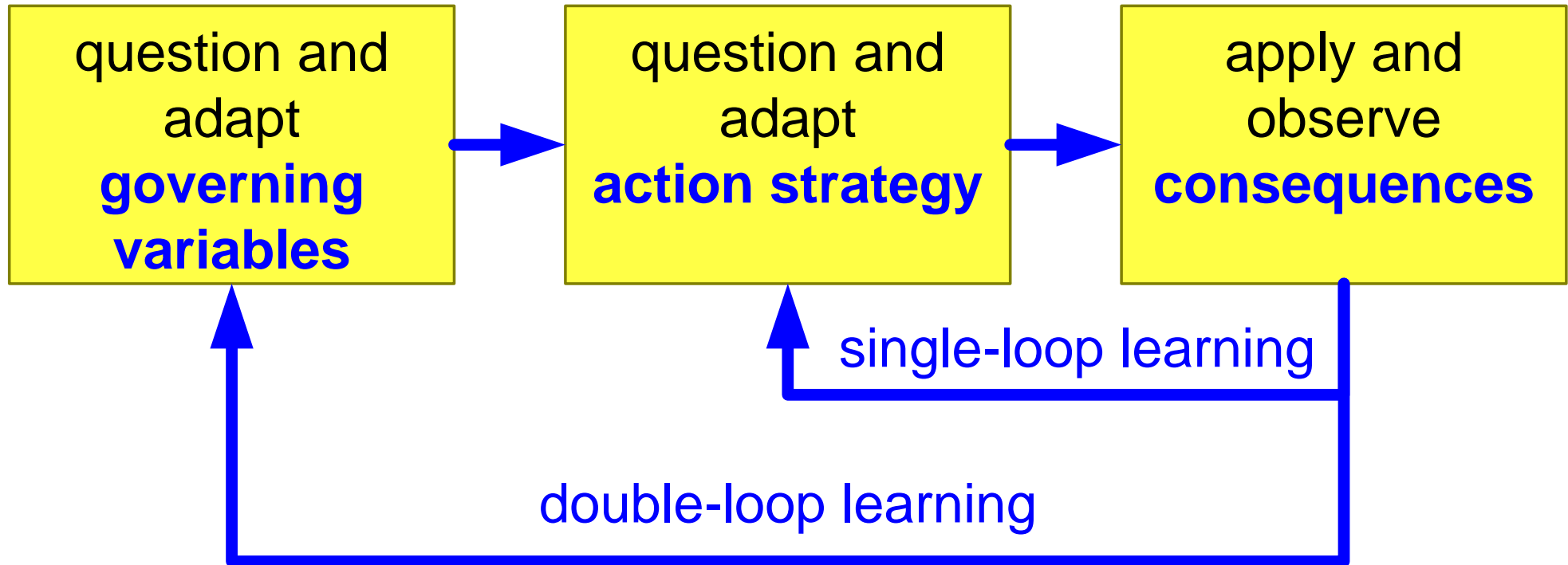
- + What are your criteria to evaluate courses?
- + Who are stakeholders of this course, what are their concerns?
- + What is the scale of reference for evaluation?

e.g. against what do you compare, how to calibrate?

be specific and concrete, provide examples

Results on flipover

Double Loop Learning



after C. Argyris

- + Transform your critics into improvement proposals
 - > be specific and concrete
- + Who is responsible for the proposed improvements?
- + How can you contribute?

Results on flipover

Post-assignment Critical Thinking

This post-assignment is pass/fail graded

Write a 2 page analysis of your immediate work environment or working methods, applying critical thinking. Propose a constructive change with rationale and a coarse estimate of the impact (time, effort) using a systems engineering mind-set.

Submit the analysis and proposal to your company supervisor. Ask your supervisor to comment by asking 3 questions; see next slide.

Add 1 page to your paper discussing the supervisor's questions.

Add 1 more page with a reflection of the homework and the workshop.

Due date: 4 weeks after the workshop.

The purpose of the workshop is to stimulate future systems engineers to think critical. Part of thinking critical is to transform “problems” into constructive ideas, e.g. improvement proposals.

Try to translate your feedback into questions that challenge your employee further:

- did the analysis look broad enough?
- is the issue recognized by the stakeholders?
- does the improvement proposal address the original issue?
- Is the analysis and improvement specific enough?

Make an overview of the domain knowledge that you have acquired until now.

Provide a few specific examples of such domain knowledge.

Make a list of domain knowledge that you like to acquire.

Replacing assignment; only after permission of the teacher

- do the pre-assignment (as all other students)
- rank your level of criticality at the beginning, before executing the replacing assignment see scale below.
- answer the workshop questions yourself
- discuss the questions and your answers with a local colleague
- write a (max) 2 page document with your answers including examples and rational behind the answers.
- send this 2 page document by mail to another student and ask for comments
- update the 2 page document
- rank your level of criticality at the end of the replacing assignment see scale below.
- rank your "desired" level of criticality in ~5 years from now
- do the post-assignment
- send 2 page document + 4 page post assignment to the teacher.

The scale for ranking is from 1 to 5, where 1 very low, 2 = low, 3 = medium, 4 = high, 5 = very high