Wrap Up; module 10 SARCH

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Abstract

This module addresses the Wrap Up of the course System Architecture

August 21, 2020
status: draft
version: 0.8

Reflection applied on Systems Architecting

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Abstract

Reflection facilitates the learning process. We discuss a simple reflection model and provide some means for reflection.

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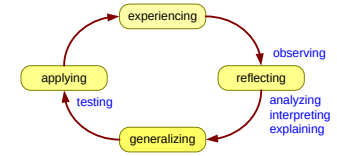


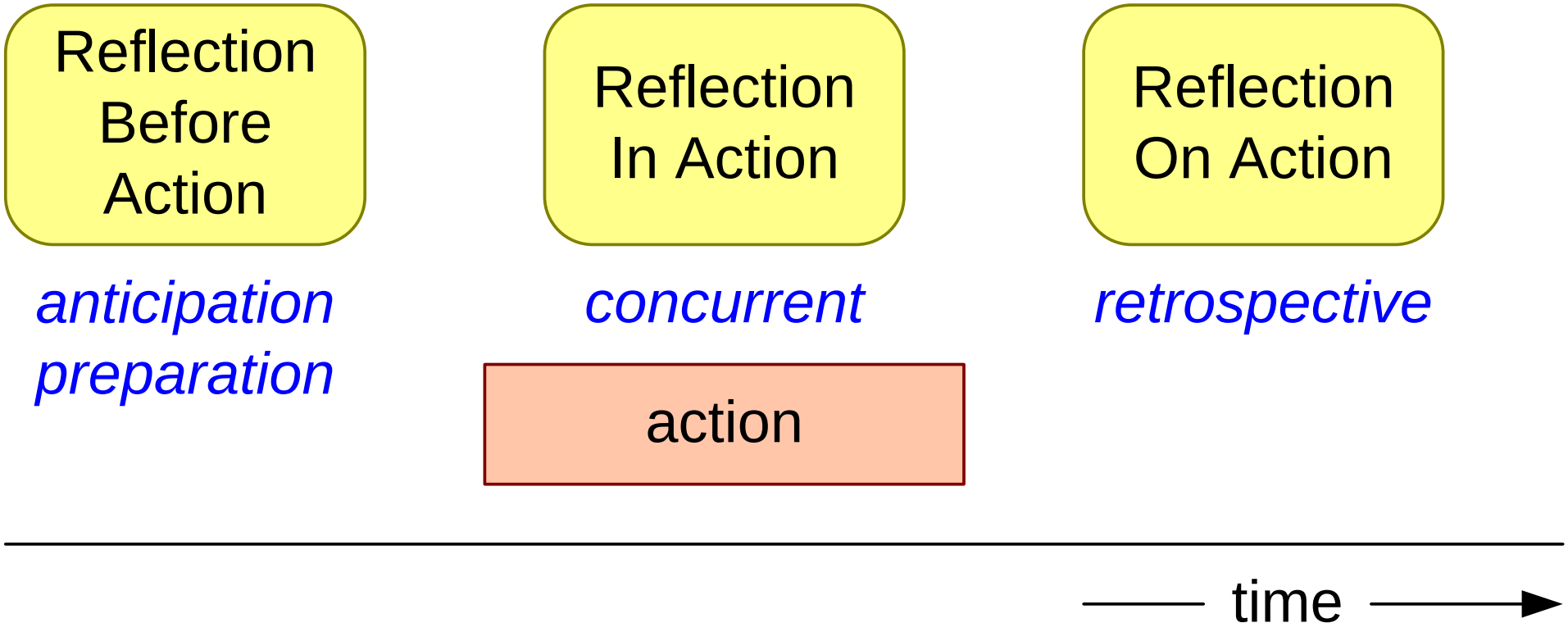
source: Kolb's learning cycle
http://www.infed.org/biblio/b-explrn.htm

Colophon

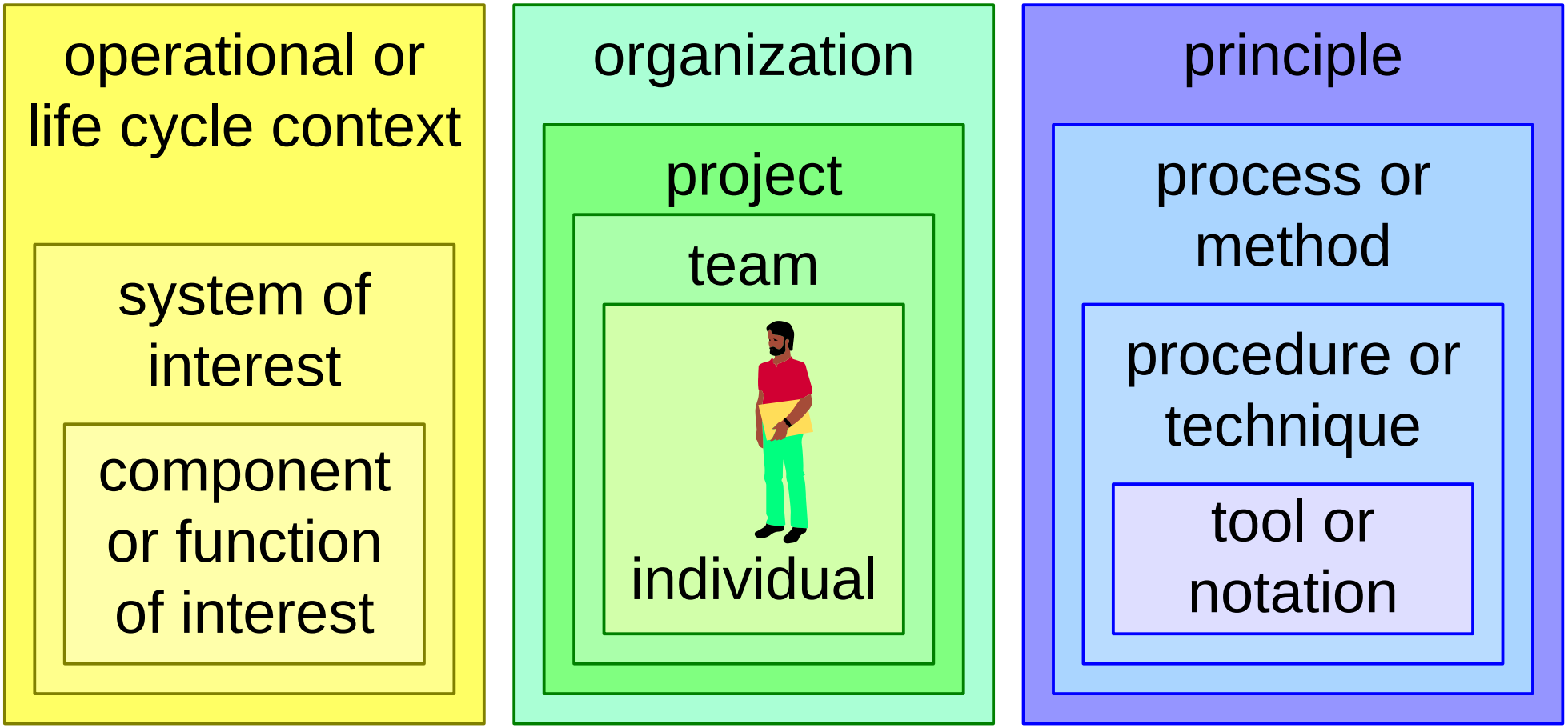
Merete Faanes from Buskerud University College created the educational flow *Reflective Practice*. Reflective Practice is a thread throughout the entire master Systems Engineering to stimulate students to relate *Education* and *Practice*.

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

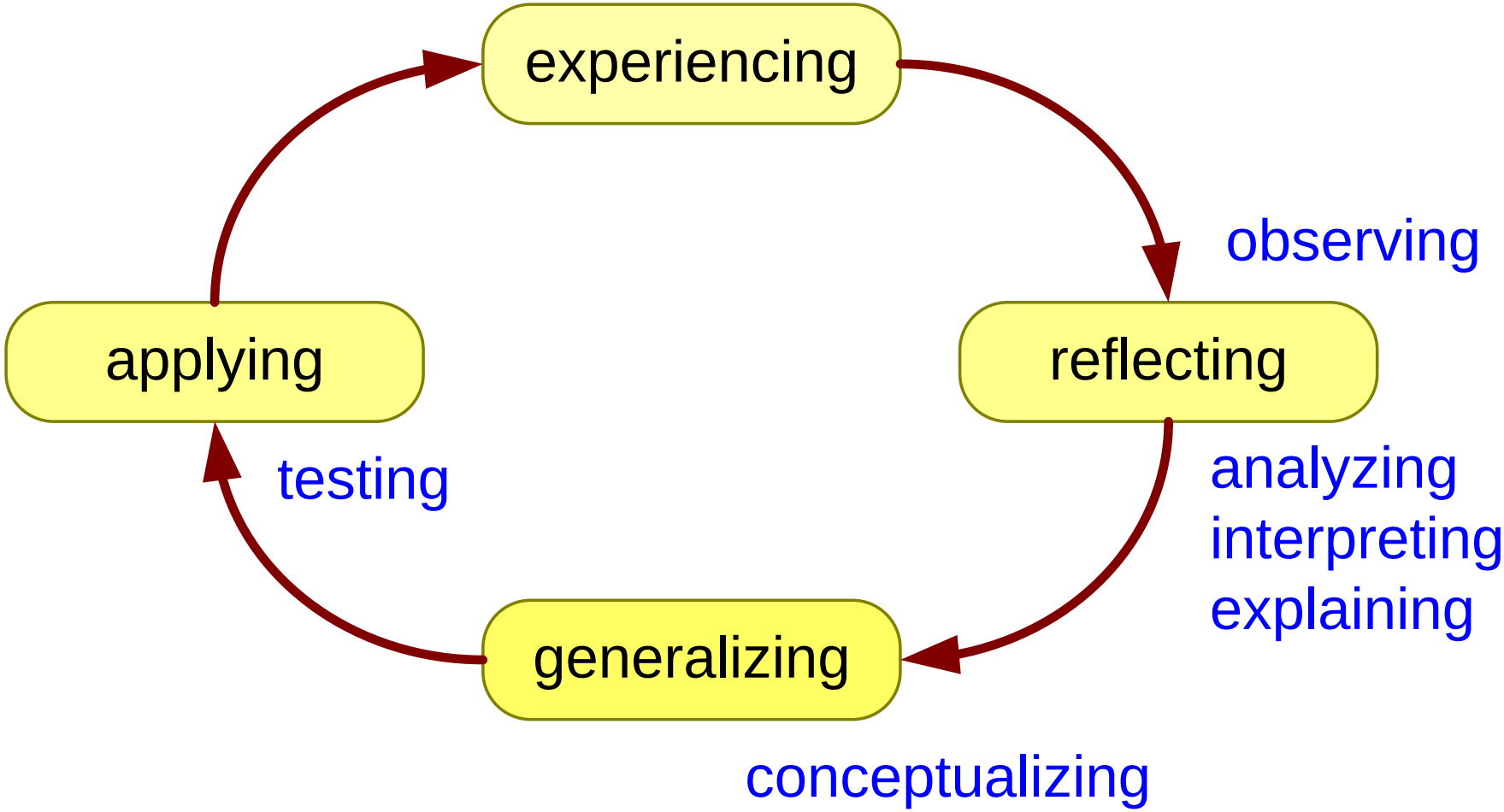
When to Reflect



Scope: What to Reflect on



Reflection Cycle



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Example of Reflection Questions

What stakeholders are involved?

What are their needs and concerns?

What is our goal?

How did we get in the current situation?

What is going well, what is going bad?

What approach can we take?

What do we expect to happen?

et cetera

Recommended Reflection Report Content

subject or goal

description of your experiences

analysis

lessons learned

actions as follow-up

avoid broad generic statements

illustrate with specific examples

Exercise Wrap Up

Make a personal improvement “roadmap” (a many year vision) and a personal improvement plan (feasible and visible first steps).

- Identify needed improvements, which can be influenced by yourself.
- Determine what you need to do to trigger the improvement and whom needs to be involved.
- Try to link your improvements to the rest of the business, for instance to planned products, conferences, platform releases or whatever recognizable anchor is available.

SESA Homework Assignment

- after ~3 weeks:
  a powerpoint presentation with figures, diagrams and tables of the SESA views
- after ~6 weeks:
  - a concept report with updated figures, diagrams and tables.
  - Add some explanatory text in the report.
  - Maximum size of the report 20 pages; less is better
- after ~9 weeks:
  - a complete report where the feedback on the concept report has been processed
- after 10 weeks:
  - personal reflection, plan and roadmap.

Viewpoints

- introduction, domain, company, and system-of-interest
- process and organization; how does the product/system creation process work? Diagram of the **de facto operational organization** (e.g. like the Monday morning SESA exercise). Note: no nice looking official diagrams, rather the actual situation with names. This actual situation might differ from the theory. Reflect on these differences, and the consequences.
- role and task of the system architect
- requirements management; especially a **customer key driver graph** for your system
- system architect toolkit; give examples typical tools, techniques and methods as applied on your system, and provide a **story** for your system.
- roadmapping; make a coarse **roadmap of market, product and technology** for your part of the company (in a broader context than the system only); pay special attention to the "outside" world, e.g. relevant trends.
- generic developments/product families; show and reflect on how your company tries to address similarity between systems, projects or products
- supporting processes, especially documentation
- **presentation to management**, especially high level financial figures for your system. Submit this as a separate presentation. You may use the presentation of the course itself, with updates based on the board meeting. Provide reflection on the presentation: How was the presentation in retrospect? How did the BoM respond?
- role of software in your system (so not the tools that are used in your organization)
- psycho social side

Recommendations and Guidelines

- Write a brief introduction for the assessors about your context, e.g. the domain, the company, and your system-of-interest
- Make and communicate visualizations (diagrams, figures, models, graphs) first.
- Use this assignment as opportunity to talk with other people in your organization.
- Reflect in the text on the viewpoint and its actual status; what works well, what can be improved?
- Note the maximum size of 20 pages; smaller reports get better grades :-)

Personal Plan, Roadmap,and Reflection

- in the personal plan and roadmap make sure that you relate these to your company; what does the company need and what do you want/what are your capabilities.
- the personal plan is short term oriented: what do you plan to do in the next days/weeks. Think about practical steps that allow you to learn and to earn credit.
- the personal roadmap is long term: where do you want to be in 3 to 5 years? How does this fit in your company? What steps are required?
- personal reflection max 1 A4, personal plan max 1 A4, personal roadmap max 1 A4.

Submission Instructions

Submission instructions

use for all deliverables the following conventions:

filename: SESA <your name> <subject> .<version>.<extension>

e.g. SESA John Student preassignment My Role.2.doc

where subject = {report | plan | ...}

email to: <gerrit . muller@usn . no>

subject: SESA <subject>

and submit in WiseFlow before the deadline.

"standard" file types preferred, e.g. pdf, jpg, doc, ppt, vsd, docx, xls, xlsx, ppt, pptx

Note: intermediate submissions are mandatory