Abstract

Industry master students work part-time in an engineering company. The Reflective Practice workshops are set-up to stimulate reflection, and to connect the educational environment with the working experience. The order and rationale behind the workshops is provided.
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.
Objectives of the Course Reflective Practice

to help students to develop their reflective capabilities
to stimulate students to bring their practical experiences into the classroom
to stimulate students to apply what they learn at their company
to stimulate students to wonder about state-of-practice
to stimulate students to be critical to:
  the offered education
  the way of working in their company
  their own position and attitude
Reflective Practice

School (Theory)
SE courses

Work (Practice)
work in company

Master Project
last half year of study

workshops during first years of study
<table>
<thead>
<tr>
<th>Year</th>
<th>Topics</th>
</tr>
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<tbody>
<tr>
<td>1st year</td>
<td>Reflection, My Role and Style, Critical Thinking, Domain knowledge</td>
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<tr>
<td>2nd year</td>
<td>How to apply SE in my daily work?, Cultural differences (international semester), project (international semester)</td>
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<tr>
<td>3rd year</td>
<td>Communication, From Student to Systems Engineer, Academic Writing</td>
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**Pre Assignment, Workshop, Post Assignment**

- **Pre-assignment**: reading and/or research and/or writing ~1-10 hours
- **Workshop**: ~4 hours
- **Post-assignment**: research and/or writing ~1-10 hours
Typical Format of a Workshop

- **look back & intro topic**
- **step 1**
- **step 2**
- **step 3**
- **wrap-up & look forward**

- **plenary explanation of step 1**
- **individual preparation**
- **discussion and analysis in small break-out groups**
- **plenary sharing and integration**

- 5..10 minutes
- 20..40 minutes
- 10..30 minutes
- 1..5 minutes
- 5..10 minutes
- 20..40 minutes
- 10..30 minutes

4 hours
Participation in workshops is mandatory
Submission of pre- and post-assigments is mandatory
Participation in international project is mandatory
Four larger assignments are Pass/Fail graded
(tentatively in semester 1, 2, 3 and 5)
study load: 7.5 ECTS (starting September 2012)
e.g. nominal study load is 200 hours

workshop load (9 hours average per workshop): 80 hours

gradeable assignments (15 hours average per deliverable): 60 hours

international project load: 60 hours
Reflection Report

- subject or goal
- description of your experiences
- analysis
- lessons learned
- actions as follow-up

*avoid broad generic statements*

*illustrate with specific examples*
Submission instructions

use for all deliverables the following conventions:
filename: RP <your name> <subject> <workshop>.<version>.<extension>
    e.g. RP John Student preassignment My Role.2.doc
where subject = {pre|post| ...}

email to: <gerrit.muller@gmail.com>
subject: RP <subject> <workshop>
"standard" file types preferred, e.g. pdf, jpg, doc, xls, ppt
submission deadline preassignment: 1 week before workshop
submission deadline postassignment: 2 weeks after workshop
Market Place: Feedback to others

+ 1 student, the host, stays with your flipover

+ The other students visit the other groups.

+ Read and discuss the results of the group you visit with the host

> Provide feedback on yellow note stickers:

  Positive (I like ..., because ...)

  Negative (formulate as question, e.g. How to...)

> minimal 4 feedback notes per person

+ After some time take over the host role and visit next groups

> Be curious, how do others think?
Market Place: "Steal" good ideas

Read the flips of other groups.

Steal good ideas from other groups, add them with a sticker to your own flip

> minimal 2 ideas per person

> Be curious, how do others think?
Market Place: Formulate Question

Read the flips of other groups.

What would you like to discuss more?

Capture what you want to discuss in a question

> minimal 1 question per person

Write the question on a yellow note sticker

> when the teacher gives the sign attach the sticker to the flip with questions
Read the flips of other groups.

Transform the insight from others and yourself into a guideline that you can use in the future

> 1 guideline per person

Write the guideline on a yellow note sticker

> when the teacher gives the sign attach the sticker to the flip with guidelines
Read the flips of other groups.

The teacher forms new teams, for example by distributing all team members over new teams.

In the redistributed teams discuss the most relevant findings; explain why these findings are most relevant.

Make a summary on a new flip