Teaching Experience

Language-Centered Formal Modeling in International Student Groups

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Didaktikforum 2016
Context

- Study program: Information Systems, 4th semester
- Type of module: optional (to be chosen from a list)
- Small groups: 6 – 12 person
- Volume/credits: 60 teaching hours / 5 ECTS
- Subject: (semi-)formal modeling of business knowledge
- Subject implication: language is at the center stage
- But: 80-90 % of the students opting for this course are not German
- Whereas only 20-30 % of all students are not German
Items to be Modeled

1. Business Processes
   a) Well-defined business procedures
      e. g. order processing in eCommerce
   b) Case processing, knowledge work
      e. g. development of individual quotations

2. Decisions
   e. g. on the proper discount for specific customers

3. Structures and networks
   e. g. in organizations or between business objects

4. Vocabularies and rules
   e. g. for a specific subject field or knowledge domain
Why Modeling is Important?

To use a common language between business and IT experts in projects.
Methods

- Modeling skills require modeling praxis
  - Project-based learning
  - Flipped classroom (partly)
  - eLearning support (video lectures)

- There should be deep domain knowledge
  - Individualization
  - Personal coaching
  - Short feedback cycles
Individual Projects

Domains

- IT Service Desk at Siemens Woronesh
- Order processing in an Indonesian furniture factory
- Processing incoming invoices at a Cameroon brewery
- Fee negotiation in a Berlin poetry slam club
- Placement in a German dog pound
- ...
Support in Project Management

Kick-Off
27.09.2016
- Themenwahl
- Teambildung
- Basis-Info
- Ansprechpartner

Meilenstein 1
18.10.2016
- Projektplan erstellt
- Termine und Verantwortlichkeiten definiert

Meilenstein 2
29.11.2015
- Prototyp getestet
- Aufgaben zur Umsetzung definiert

Meilenstein 3
- Zwischenpräsentation des Arbeitsstandes
  - Life-System
  - Offene Fragen

Meilenstein 4
17.01.2017
- Abschluss Umsetzung
- Aufgabenteilung Bericht definiert

Meilenstein 5
31.01.2017
- Präsentation + Projektbericht über
  - Vorgehen
  - Ergebnisse
  - Empfehlungen
Tool Suggestion for PM: Trello

https://trello.com
Video Lectures and Flipped Classroom

- Short lectures during the attendance time
- Transfer assignments for acquiring skills and personal experience
- Individual coaching with reflection and discussion of errors
- Short feedback cycles, chances for enhancement
Feedback from Students

» If you weren’t as much interested in our personal results, we would not work as hard as we did.

» The individual discussion and reflection of our results and mistakes helped a lot to increase our modeling skills.

» Video lectures were a good support when it comes to real modeling tasks.

» At the start it seems very hard to achieve such a challenging goal – but we were really motivated, since we could base the project on our personal experience.

» It would be nice to go further in the project or to combine it with related fields of practice, like programming or process execution.
Open Questions

- In most other modules international students don’t show as much motivation, why in this seriously language-centered course?

- Working in individual projects, students show distinctly better performance and motivation as in team projects. Why?

- For ensuring continuous work in the project I define milestones which become part of the grades. Are there other, not forcing methods for getting students work continuously?

- How to face the great competition from concurrent modules. Even in the last semesters students have to perform in a lot of projects. Do you have experiences in interlacing projects from different modules?
Thank You for Your Attention

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