

Panel 5: Self-study

Since the Bologna Process, the time for self-study has been incorporated into the calculation of credit points for each module. This means that students should be engaging with the materials and methods of their disciplines outside classroom and that teaching staff should assist in planning this learning. Learning outcomes should therefore be set for self-study, and students should receive guidance to that end as well as obtain feedback on their progress. Some questions arising from this, which we discuss in the workshop, include:

- Is there a culture of autonomous and independently-organised learning in engineering studies? What characterizes this culture?
- How can classes and self-study be usefully interwoven, organised and structured in terms of content?
- What is expected of student outside of classroom-based learning activities and to what extend is self-study useful?
- What role do teaching staff play in self-study?

Input 1: Professor Dr Rolf Schulmeister, Universität Hamburg and Dr Christiane Metzger, Project ZEITLast

Input 2: Professor Dr Daniel Schilberg, RWTH Aachen University

Chair: Lars Funk, The Association of German Engineers

Results and statements

Statements Professor Schulmeister and Dr. Christiane Metzger:

- The (subjective) impression of a to high work load and the actual amount of student engagement are different things
- A block plan concept (each module as one block) avoids a competition of moduls within the week and regarding self study tasks (cognitive load)
- Integrating self study phases between lectures and seminars creates a continuous collaboration and learning motivation and reduces examination anxiety
- Counselling and tutoring students in phases of self-studying is important and creates trust and self-confidence
- Motivation is a decisive factor for learning success whereas educational background, preknowledge, gender and social criteria and other criteria are less significant.
- Students are diverse in
 - how they are able to focus on their work or how easily they are distracted by entertainment, communication, social contacts and social media from their work
 - postponing learning tasks to future days (procrastination)
 - how to cope with strain, negative feeling and anxiety

Statements Professor Schilberg:

- Learning objective for students is to pass the exam at the end of the module
- Self studying is not happening steadily during the whole semester but intensified immediately before the exam
- The added value for students must be tangible for the students
- The motivation for self-studying is higher in small groups of students than in the anonymity of large groups of students

Conclusion (lessons learned, final statement)

Key Success Factors for Self Study are:

- a consistent counselling of the students
- feedback in shorter periods:
 - individually
 - experience of achievement
 - peer review
 - bonus points
- learning and feedback culture have to be developed