

The Hamburg University of Technology
Symposium on Research-Based Learning

Facilitating factors and ideas for engaging students in research

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Diverse, creative, and adaptable engineers who solve complex problems are desired in the future. In order to invigorate this, engaging students in research is a potentially high-impact educational practice. However, its implementation faces various obstacles and needs numerous facilitators in terms of culture, resources, structure of study programmes, academics' qualification and students' competencies. On the basis of three studies, we will highlight what academics and students perceived as facilitating factors to integrate research into teaching and which ideas they suggested for the Hamburg University of Technology. For example, interviewees mentioned various aspects as positive like acknowledgment for academics' efforts to engage students in research, facilities such as informal and maker spaces, study programme based approach for students' research skill development, interested academics in students' own topics and extracurricular student-academic partnerships in research. Finally, we encourage the audience to share their visions and recommendations on how to engage students in research at this university.

Selected references

Bulmann, U., S. Bornhöft, and D. Ellinger (2019). Barriers and factors for engaging engineering students in research. A multi-perspective approach. Sefi Annual Conference 2019. Budapest. (submitted)

Ellinger, D. & Bulmann, U. (2019). Herausforderungen und Strategien bei der Implementierung forschungsbezogener Lehre und Forschendes Lernen in integrativen Lehrpraxisprojekten. Poster auf der 38. Jahrestagung der Deutschen Gesellschaft für Hochschuldidaktik 6.3.2019

Bulmann, U., Bornhöft, S., Vosgerau, K., Ellinger, D., and S. Knutzen (2018). Combining research and teaching in engineering. Creating a pedagogical qualification programme on research-based learning for early stage researchers. SEFI proceedings. 2018. 97-105.

Vosgerau, K., and U. Bulmann (2018). Benefits of Research-Based Learning as Active Learning in Engineering. In: Jansen-Schulz, B., and T. Tantau (eds.) (2018). Excellent Teaching. Principles, Structures and Requirements. Blickpunkt Hochschuldidaktik, No. 133. Bielefeld: W. Bertelsmann Verlag. pp. 169-184.