

Invitation to Workshop

Educational Research: How to set up experiments in your classroom and write a publication about it.

Workshop leader: Prof. Dr. Erik de Graaff, Aalborg University, Editor in Chief of the European Journal of Engineering Education

Target Group: academic teachers and professors

Date: Tuesday, October 17, 2017, 9.00 am – 4.00 pm

Please register via email:

wwb@zewk.tu-berlin.de before Thursday, October 12, 2017

Place:

TU Berlin

ZEWK – Zentraleinrichtung Wissenschaftliche Weiterbildung und Kooperation
Fraunhofer Straße 33-36, 10587 Berlin, room FH 1004

Any academic teacher or professor who teaches at a university is a researcher in his/her own field. As such you are familiar with scientific methods of knowledge gathering. Yet when it comes to teaching many fall back on tradition and intuition, also by resuming their own experiences in the classroom. Standard evaluation often does not cover learning processes and student understanding.

In the USA, Ernest Boyer started a movement aiming to help academic teachers increase their scientific understanding of the process of teaching and learning, called 'Scholarship of teaching'. Basically this is about applying a scientific attitude of looking for proof to all choices and decisions in the classroom or lecture hall. More specifically it could result in classroom experiments aiming to verify the validity of pedagogic interventions. A teacher who sets up a series of such experiments could share the knowledge gained on the effects of his teaching to student learning with colleagues by writing an educational publication for a conference or journal on higher education.

In Germany, Ludwig Huber et al (2014)¹ espoused scholarship of teaching presenting an overview of methods and examples tailored for the German situation.

¹ Huber, Ludwig; Pilniok, Arne; Sethe, Rolf; Szczyrba, Birgit; Vogel, Michael (Hrsg.): *Forschendes Lehren im eigenen Fach: Scholarship of Teaching and Learning in Beispielen*. Bielefeld: Bertelsmann 2014 (1. Aufl.)

Aufzeichnung des Vortrags „Forschendes Lehren im eigenen Fach: Wie die eigene Lehre untersuchen und auf dieser Basis weiterentwickeln? von Prof. Dr. Ludwig Huber im Rahmen der Hochschuldidaktischen Ringvorlesung am 18.01.2016
http://elearning.zewk.tu-berlin.de/ringvorlesung/2016-01-18_Huber/index.php

The workshop will present methods of applied research in a mixed methods framework. Participants will focus on formulating their own research questions and select a potential target for writing a short publication. Relevant conferences and journals for publication will be identified.

Learning objectives

After participating in the program the participant will ...

- Know the basic research methods for applied research in a classroom situation.
- Be able to apply those methods in a set up for a classroom experiment.
- Be able to write an abstract or paper proposal for an educational conference.
- Be able to select the appropriate conferences and journals for publications on teaching in their own field.

Topics of Program

Opening and Introduction

Presentation: Scholarship of Teaching

Exercise: Formulating research questions

Applied research in higher education

Group work: Design of a classroom experiment

Presentation: Where to publish educational research?

Conclusion

Short Biography

Erik de Graaff (phD) is a professor at the Aalborg Centre for Problem Based Learning in Engineering Science and Sustainability under the auspices of UNESCO. He contributed to the promotion of knowledge and understanding of higher engineering education with numerous publications and through active participation in professional organizations like SEFI, IGIP, IFEEES and ALE. In the course of his career he published over 200 articles and papers and he presented more than 70 keynotes and invited lectures on various topics related to PBL in higher education. Since January 2008 he is Editor-in-Chief of the European Journal of Engineering Education.

UNESCO - United Nations Educational, Scientific and Cultural Organization

SEFI – Société Européenne de Formation des Ingénieurs

IGIP – Internationale Gesellschaft für Ingenieur-Pädagogik

IFEEES – International Federation of Engineering Education Societies

ALE – International Workgroup on Active Learning in Engineering
