

Conference dates: May 27-29, 2010

Conference language: English

Venue: University of Bremen, Dept. of Biology and Chemistry building, Leobener Str. NW 2, 28334 Bremen, Germany

Conference fees:

None. Travel costs, accommodation and social events are the responsibility of the participants.

Conference chairs:

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Further information:

Current information will be published at www.chemiedidaktik.uni-bremen.de/symp2010/ from Spring 2009.

A 2nd announcement will follow in Autumn 2009.



Contemporary Science Education

Implications from Science Education Research for Orientation, Strategies and Assessment

The symposium will be supported by



20th Symposium on Chemistry and Science Education
to be held at the University of Bremen, May 27-29, 2010

(First Announcement)
www.chemiedidaktik.uni-bremen.de/symp2010/

Rationale

The 20th Symposium on Chemistry and Science Education taking place at the University of Bremen in May 2010 continues a long tradition of symposia stretching back to 1981. In summer 2010 we will celebrate the symposium's 20th re-launch.

In the past, symposia repeatedly raised the question of how science education research can help to improve chemistry and science teaching and learning. But the question of how to promote successful science learning automatically implies a further question: Which are the objectives to be reached? Is science teaching primarily aimed at learning the content and theories of science? Or should it have an orientation weighted more towards general educational objectives and skills?

The 2010 symposium is titled "**Contemporary Science Education - Implications from Science Education Research for Orientation, Strategies and Assessment**". This title simultaneously maintains and further develops the topics of the past symposia from 2002-2008, in which we discussed the orientations and methodology of science education research, questions of teacher education and successful science learning. In one way or another, all of the symposia touched upon the question of valuable orientations in chemistry and science education. The symposium in spring 2010 will reveal and evaluate this question further from the perspective of science education research evidence.

The main questions addressed will include:

- How and where do we see the balance between the learning of science facts and theories vs. more general education objectives derived from educational theory?
- What conclusions must we draw when more deeply reconsidering the essential elements of the scientific literacy debate, activity theory and the German concept of "*Allgemeinbildung*"?
- Which answers can be obtained from general and science education research when considering different approaches towards science teaching?
- Which issues and strategies obtained from science education research can be seen as valuable tools to apply to chemistry and science teaching?
- What is state-of-the-art in context-based and/or STS-oriented science curriculum development and what do we know about the effects of these respective approaches?
- What do we know from research about attitudes, motivation and PCK of practicing teachers concerning different approaches towards chemistry and science teaching?
- Which research-based strategies do we have for implementing changes and for teacher education towards modern approaches to chemistry and science teaching?

All contributions will be presented by invited lecturers. Suggestions for appropriate lectures are welcome until September 2009.

The University of Bremen

Founded in 1971, the University is nearing its 40th anniversary. It currently has almost 20,000 students - of which 15 per cent come from other countries. Some of the ground-breaking educational concepts implemented in those early days have become long-established features in modern German university education: interdisciplinary study and research, research-based teaching projects and developing an attitude of responsibility towards society. These concepts have since been augmented by new aims like internationalization, opportunities for junior scientists and scholars in structured post-graduate programs, gender equality, and an added sense of purpose as a "learning institution".

During the first round of the 'Excellence Initiative 2006' which identified Germany's best universities, the press lauded Bremen University for achieving such a high position in the rankings. At the end of the day, Bremen was confirmed as belonging to the top ten German universities. Not only in this respect does the University deserve to be included at the pinnacle of higher education. In the acquisition of third-party funding it is also among the ten most successful institutions in Germany.

In the field of science, the University of Bremen has established a good reputation in many different fields, including environmental and maritime research, the life and material sciences, and in science education research.