

IPN Leibniz Institute for Science Education



The Leibniz Institute for Science Education (IPN) was founded 1968 as a research center for science education. It is located in Kiel, a city in Germany at the Baltic Sea. As an institute of the Leibniz Association with a nationwide function IPN gets basic funds by the federal government and the commission of German states (Länder). IPN is also affiliated to the University of Kiel. The department heads at the IPN hold professorships at the University of Kiel.

The institute's mission is to develop and promote science education through research. So research deals with the full scope of issues concerning teaching and learning in the sciences inside and outside schools. The institute comprises four departments: Educational Science (including research methodology and statistics), Biology Education, Chemistry Education, and Physics Education.

Approximately 130 people make up the IPN staff, about 100 persons are working as scientists with an university degree, including 50 doctoral students. About 50% of the staff are working on projects funded by different research foundations or clients.

IPN's tasks range across the entire field of science and technology education. The IPN concentrates on long-term and nationwide research projects, which cannot be covered by universities.



The IPN research program focuses on following areas:

- Research on aims, perspectives and curricula of science education (e.g. conceptions of scientific literacy or standards for science education);
- Research on teaching-learning processes in science education (e.g. comparative video studies in physics instruction);
- Research on innovative concepts for science teaching (e.g. systemic approaches to earth sciences, contextualized chemistry and physics instruction);
- Research on new media used for science education (simulation in neurobiology, collaborative inquiry learning in networks);
- Educational monitoring and research methodology (national surveys, item response modelling);
- Quality improvement in science education (nationwide pilot programs for collaborative teacher professionalization; out of school learning opportunities).



Besides its research activities IPN offers different services (Coordination of national and international student competitions in biology, chemistry, physics and environmental issues, programs for teacher education, documentation of curricula, publications on science education addressing teachers and scientists).

<http://www.ipn.uni-kiel.de>