



Sparkling Science >  
Wissenschaft ruft Schule  
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Project Outlook, November 27<sup>th</sup> 2008

## **KiP \* Kids Participation in Educational Research**

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Bundesministerium für Wissenschaft  
und Forschung

## KiP \* Kids Participation in Educational Research.

Inquiry Learning in Life Science Research Projects

### Progress report for mutual learning and researching in KiP: The course is 'on course'

#### Project Goal 1: "Research with scientists and learning about scientific research."

"Yes, well, research, it is much more than just observing where animals look for a habitat" (Schoolgirl, 14 years).

KiP is a didactic research and development project: Students from eight schools participate in research and learning in five life science research projects (neurobiology, environmental research, marine biology, forensic biology and evolutionary biology). One main scientific goal of the KiP project is to investigate the learning processes of all involved participants. At the beginning, a team of specialized pedagogics evaluated the perspectives of the three participating groups of the project and their attitudes toward research in the life sciences in a series of individual and group interviews. Part of this data will be analyzed and interpreted together with the students. The conceptions which students have about research fluctuate between theoretical formulations and very picturesque descriptions of science. One fourteen-year old boy offered this definition: "Research is simply looking and collecting information on how things react with other things." In contrast, a fourteen-year old girl defined research as, "First I get some water, then look at it through the microscope and then say, 'yes, this and that'".

KiP provides students and teachers with the opportunity to differentiate their own ideas about the life sciences by participating in research projects, as well as the chance to learn about biology as a science ("Nature of Science"). After examination of the initial interviews on the expectations of the scientists, two tendencies become readily recognizable: One, they expect the emergence of new perspectives on their own research area: "Being quite impartial, it doesn't matter if teacher, student or whoever, but suddenly they introduce an interesting aspect to which we, as specialists, were previously blind." Two, since scientists seek to enlighten their community about the sciences, they thereby contribute to public education: "Clarification is in the forefront," explained a scientist, "an understanding for the research should be awakened."



## Project Goal 2: Participation and Sustainability of KiP

A further goal of KiP is the mutual development of a model based on the empirical research conducted over the course of the project. The model will help serve future cooperation projects in school classes at the Faculty for Life Sciences (*"Model 2010"*). Currently, teachers are working with the scientists to establish the basic conditions for participation in research projects. Preliminary results will be presented, exchanged and discussed by the students, scientists and teachers within the framework of a reflection workshop on Dec. 5 and 6, 2008. We are eagerly awaiting to hear of the first research topics and ideas for the formation of cooperative ventures. The plans (*"inventions"*) suggested by the students, teachers and scientists, as well as their mutual understanding of the research (*"Communities of Practice"*) will yield the groundwork for a knowledgeable and informed development of the *"Model 2010"*.

The data gathered over the course of the projects will be condensed into several individual case studies. These will be validated by all members involved. A regular monitoring of the process together with formative evaluations should guarantee that enough space is created for eye-to-eye meetings between teachers, students and scientists. Our first experiences had an optimistic overtone. Beginning in December, an international Advisory Board will be set up to make recommendations and to ensure the quality of the project.

### Cooperation partners:

Faculty of Life Sciences (University of Vienna), Institute of Instructional and School Development (IUS, University Klagenfurt), IMST – Regionales Netzwerk Wien, University of Education Lower Austria





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