

IMST² – A NATION-WIDE INITIATIVE FOR UPPER SECONDARY SCHOOLS IN AUSTRIA

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Following the poor results of Austrian high school students in the TIMSS achievement test, a research project was set up in which the results were analysed and additional investigations into the situation of mathematics and science teaching were started. As a consequence, the initiative IMST² – Innovations in Mathematics, Science and Technology Teaching was launched to support teachers' efforts in raising the quality of learning and teaching in mathematics and science. In the school year 2000-01, 126 Austrian schools participated in total with about one quarter collaborating more intensively with the IMST²-team and documenting one or more innovations.

Four priority programmes – S1: Basic education, S2: School development, S3: Teaching and learning processes and S4: Practice-oriented research – have been established. The four teams support initiatives at schools as well as develop corresponding theoretical concepts. *Innovations* are the key feature of IMST². They are not regarded as singular events that replace an ineffective practice but as *continuous processes* that lead to a natural further development of practice. Participation in the initiative is *voluntary*, teachers and schools have the *ownership* of their innovations. *Writing down* the experiences in a systematic way means a second cycle of reflection and opens the opportunity for more people to learn from those experiences. Another important feature of IMST² is the emphasis on supporting *teams of teachers* from one school.

Evaluation is an integral part of IMST² whereby three different functions have been defined:

- The *process-oriented evaluation* should generate in a continuous feedback process steering knowledge for the project management and the project teams.
- The *outcome-oriented evaluation* should work out the impact of the project at different levels of the educational system.
- The *knowledge-oriented evaluation* should generate new theoretical and practical knowledge which will form a basis for improving support to innovations at schools.

The poster shows the first outcome of the process-oriented and the outcome-oriented evaluation.

Reference:

Krainer, K.: Innovations in Mathematics, Science and Technology Teaching (IMST²). Initial Outcome of a Nation-wide Initiative for Upper Secondary Schools in Austria. To appear 2002 in: Borovcnik, M. & Kautschitsch, H. (Eds.): Technology in Mathematics Teaching. Proceedings of the ICTMT 5 in Klagenfurt 2001, Schriftenreihe Didaktik der Mathematik v. 25. öbv&hpt, Vienna.